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A Glossary of Farm Terms



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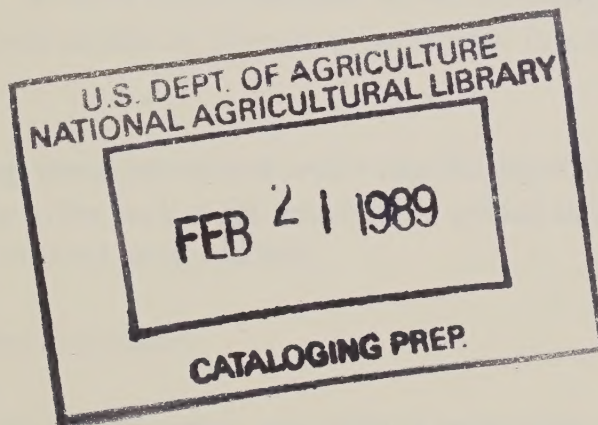
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General Livestock Terms

ABATTOIR: Slaughterhouse for processing livestock to meat.

ABORTION: Premature expulsion of the fetus.

AFTERBIRTH: The placenta and membranes with which the fetus is connected to the mother's uterus. It is expelled following parturition.

ANIMAL UNIT: A unit of measurement of livestock, the equivalent of one mature cow weighing 1,000 lbs. The measure is used in making comparisons of feed consumption. Five mature ewes also are considered an animal unit.

ANIMAL UNIT MONTH: The amount of feed needed by one animal unit for good growth and production during one month, usually 400 lbs. of TDN.

ANTIBIOTIC: A product of a living organism which, when present in low concentrations, destroys or inhibits the growth or action of another microorganism. Very effective against pathogenic bacteria, noneffective against virus organisms.

ARTIFICIAL INSEMINATION: The mechanical injection of male semen into the womb of the female with a special syringe-like apparatus. The process begins with the collection of semen from the male. This method is used extensively in dairy husbandry.

BACTERINS: Vaccines

BALANCED RATION: A ration which furnishes all the necessary nutrients in the proportions and amounts needed by the animal for normal functioning and growth.

BALLING GUN: A long, metal instrument with a cup-like depression at one end for placing solid medicine in the back of the mouth of an animal so that the medication is swallowed without being chewed.

BANG'S DISEASE: See Brucellosis.

BARREN: Sterile, infertile, nonbreeder, incapable of producing offspring.

BIOLOGICS: Immunization materials made from living or "killed" organisms and their products, used for the detection and prevention of diseases; includes serums, vaccines, bacterins, antigens, and antitoxins.

BLOATING: Abnormal swelling of the abdomen of livestock, caused by excessive gas formation which can result in death.

BLOODLINE: In animals, a distinctive trait of character stemming from a sequence of direct ancestors in a pedigree; a “family” within a breed.

BLOOM: A term commonly used to describe the beauty and freshness of a female in early lactation, also for animals in the peak of condition for a show or sale.

BOLUS: A soft mass of chewed food.

BRAND: An owner’s identification mark applied to a specific area of an animal’s body. Usually it is a hot iron on cattle and horses, and paint on sheep and goats.

BREED: A group of animals descended from common ancestry and possessing certain inherited characteristics which distinguish it from any other group. When matings within the breed are made, these characteristics are transmitted to the offspring in a uniform and predictable manner.

BROWSE: Small woody plants with tender shoots used as feed by goats, sheep and cattle.

BRUCELLOSIS: Contagious abortion in beef and dairy cattle, caused by Brucellosis germ. Same disease in humans is known as undulant fever.

BULL: A mature male bovine.

CARNIVORE: Animal that eats animal origin feeds only.

CARRYING CAPACITY: The number of animals that a pasture can properly carry or feed for a certain period.

CASTRATION: The removal of male reproductive organs (testicles) to reduce sexual activity and increase fattening of meat animals.

CHUTE: A narrow alley or structure limiting animals to single file passage. May be portable. Squeeze—To restrain animals for husbandry practices to be performed.

COLOSTRUM: The first milk produced by a female mammal right after parturition. It is thicker and yellow in color, and contains high levels of antibodies, protein, and energy.

CONCENTRATE: Feeds high in total digestible nutrients and low in fiber, such as barley, oats, cottonseed and beet pulp.

CONDITION: Refers to the amount of flesh (body weight), the quality of the hair coat, and the general health of animals.

CONFINEMENT: Livestock kept in “dry-lot” for maximum year-round production. Facilities may be partial or complete solid floored and enclosed/covered.

CONFORMATION: Refers to the shape of the body of an animal and the relation of the shape to the "ideal" type desired. Conformation and type are correlated with the product and/or performance for which the animal is used.

COW: Mature female bovine, usually 2 years of age or older.

CREEP FEEDER: A feeding pen built with a small entrance through which only young, small animals can enter. This prevents larger animals from crowding the smaller ones from the feed.

CROSSBREEDING: The mating of individuals of two distinct breeds.

CUD: A bolus of regurgitated food that ruminants re chew.

CULL: Remove from the herd or flock, usually undesirable and/or inefficient (unprofitable) breeding stock that will be sent to slaughter.

DAM: The female parent of an animal.

DE-HORN: Removal of horns from cattle and goats to facilitate handling of animals and prevent body damage.

DIGESTIBLE PROTEIN: That part of the protein in a feed which the animal can digest, usually 75 to 85 percent.

DRESSING PERCENTAGE: A comparison of the weight of a chilled carcass with its live weight to determine the percentage of yield. Dressing percentage is an important factor in determining market price of meat animals sold for slaughter. Average dressing percentages are:

	<i>Range</i>	<i>Average</i>
US Choice Beef	58-62 percent	60 percent
US Choice Lamb	48-52 percent	50 percent
US No. 1 Hog	67-72 percent	70 percent

EARTAG: A metal or plastic tag fastened to the ear of an animal for the purpose of identification.

EASY KEEPER: An animal that does well, attains good condition on a minimum of feed.

ELASTRATION: The method of castrating young male animals by choking off circulation to testicles by means of a heavy rubber ring put in place with a special tool. Testicles gradually wither and drop off.

EMBRYO TRANSFER: Recovery of Zygote(s) from female and transplanted to a recipient(s) that act as a surrogate mother to complete the embryo and fetal development to full term and parturition. Enables an outstanding female to produce multiples of her genetic offspring in a short period of time.

ESTRUS: The time when a female is receptive to service from a breeding male, timed to the imminent release of the ovum (egg) for fertilization.

FEED CONVERSION RATIO: The comparison of the amount of feed consumed by animals or poultry to the amount of meat or eggs produced by the animal or chicken. An example: A beef animal requires approximately 7.5 pounds of feed per pound of gain.

FIBER: The cellulose portion of roughages (forages) that is low in TDN and hard to digest by monogastric animals. Ruminant animals with their rumen microorganisms are able to digest a higher portion of the fibrous matter.

FISTULA: Surgical incision into the rumen from the left side of a ruminant animal; a metal rubber or glass cannula with cap is used to allow entry into the rumen for research.

FLUSHING: Change of feed for females before breeding. Stimulates estrus cycle and increases ovulation rate.

FOOT ROT: A common inflammation occurring between the toes and in the hoofs of sheep and cattle. The symptoms are limping and a swelling above and between the claws. Caused by a combination of fungus and bacteria.

FORAGE: Plants used for feed by livestock.

FOUNDER: (Laminitis) Inflammation of foot and lower leg of horse and ruminant animals. Caused by overeating grain or green grass.

FREEMARTIN: A sexually imperfect female calf, normally sterile, born as the twin of a male.

FRESHEN: To come into milk production after calving.

GENETICS: The science of the study of inheritance.

GESTATION PERIOD: Period of pregnancy. In cows, the average period is 281 days; in sheep, the average is 147 days; in swine, the average is 114 days.

GET: The progeny or offspring of a sire (male).

GRADE: An animal of common or mixed breeding; an animal which is not a purebred. Such an animal is ineligible for registration though it usually exhibits some purebred characteristics.

1. Quality Grades for Beef—based on conformation, finish, and quality:

US Prime	US Commercial
US Choice	US Utility
US Good	US Cutter
US Standard	US Canner

2. Yield Grades for Beef—based on the expected yield (cutability) of trimmed, boneless major retail cuts:

YG 1 (best)	YG 4
YG 2	YG 5 (poorest)
YG3	
3. Quality Grades for lamb are US Prime, US Choice, US Good, US Utility and US Cull.
4. Yield Grades for lamb are the same as for beef.
5. USDA Grades for slaughter hogs and pork carcasses combine Quality and Yield into one designated grade. These are US 1, US 2, US 3, US 4 and Utility.

GRAZE: Livestock and wild animals consume standing vegetation.

GREEN CHOP: Mechanical harvesting (gathering and chopping) of forage crops (entire plant) and delivery to feed bunks for livestock consumption. Animals are kept in confinement in “dry lot” corrals.

HERBIVORE: Animals that eat plant origin feeds only.

HYBRID VIGOR: The tendency of crossbred offspring to perform better, in certain traits, than the average of their parents.

INBREEDING: Mating of close relations, usually sire to daughter, dam to son, brother to sister, etc.

LIVER FLUKE: A parasite of the liver.

LIVESTOCK: Domestic farm animals kept for productive purposes includes beef and dairy cattle, sheep and goats, swine, and (can include) poultry.

MONOGASTRIC: Having only one stomach or stomach compartment.

MOUTHING: The process of inspecting an animal’s teeth (usually sheep and horses) to determine age.

NET ENERGY: Measurement of digestible energy that is actually used by an animal for maintenance and production.

NUTRIENT: A chemical element or compound that is essential for normal body metabolism, growth and production. Includes: carbohydrates fats, proteins, vitamins, minerals and water.

OFF FEED: A term often used in reference to loss of appetite in animals.

OFFSPRING: The progeny of parents.

OMNIVORE: Animals that eat both animal and plant origin feeds.

OPEN: In breeding stock, an animal not pregnant.

PARTURITION: The act or process of giving birth.

PEDIGREE: A record of ancestry.

PHENOTYPE: Visual appearance of an animal that is an expression of its genotype (internal genetic makeup).

PHYSIOLOGY: The science of the function of organs, systems, and the whole living body.

PINK EYE: A disease which attacks the eyes of cattle of all ages. The eye gradually becomes pearl colored and opaque. The eyeball may even rupture, causing blindness.

PREDATOR: Any animal, including insects and microorganisms, that preys upon other animals, resulting in injury and/or death. The predator may devour part or all of the prey.

PREGNANCY TESTING: Examining the female animal to determine if she has conceived. In cattle and horses, this is usually done 45 or more days after breeding.

PREPOTENT: Designating an animal which transmits its own characteristics to its progeny to a marked and highly uniform degree. Sometimes used to denote a high degree of fertility in males.

PRODUCE: The progeny or offspring of a dam (female).

PROGENY TESTING: Testing the male or female for desirable production characteristics by checking the performance of their sons or daughters.

PROTEIN: The nitrogenous material in vegetable or animal substance.

PROVEN SIRE: A sire whose transmitting ability has been measured by comparing the production performance of his offspring with that of the dams (prior generation) and/or herdmates under similar environmental conditions.

PUREBRED: An unadulterated or pure strain of any breed of livestock such as a "purebred Hereford cow." The standards for officially registering an animal as purebred are established by the breed association. The term is commonly confused with "Thoroughbred," which is a specific breed of horse.

QUALITY: A term indicating fineness of texture as opposed to coarseness. Used to indicate relative merit of various productive and/or conformation traits in describing a single animal or comparing two or more animals.

RANGY: Designating an animal that is long, lean, leggy, and lacking in muscularity.

RATION: The amount of food supplied to an animal for a definite period, usually for a day. The feed allowed for a given animal daily, whether it is fed at one time or in portions at different times. Also, can refer to the ingredients which comprise the daily amount of feed.

ROUGHAGES: Feeds high in fiber, low in total digestible nutrients as hay and silage; the complete forage plant, including the stalk, stem, leaf, and (if mature) the seed.

RUMINANTS: Animals having a stomach with four compartments (rumen, reticulum, omasum and abomasum). Their digestive process is more complex, therefore, than that of animals having a true stomach. Some commonly known ruminants are cattle, sheep and goats; an example of a true stomach animal is the pig.

RUSTLE: To hunt for own feed, especially range animals moving out, away from water and supplemental feed, after the native forage; also, to steal livestock.

SCOURS: An infectious disease, similar to diarrhea, common to young animals. It often occurs soon after birth.

SCRUB: An animal of inferior breeding and/or individuality.

SCURS: Small rounded portions of horn tissue attached to the skin at the horn pits of polled animals; regrowth after the de-horning operation.

SELECTION: The selection of certain individual animals to be the parents of the next generation. For profitable improvement, this choice must be done on the basis of the individuals' practical performances, also of the ancestors and progeny (if available).

SETTLED: Term commonly used to indicate a female has become pregnant; also, conceived.

SHRINKAGE: The loss of weight an animal experiences, due to excretion, during transit or movement. The standard allowance in transit of beef cattle, for example, is 4 percent of gross weight of the cattle at the time the purchaser takes possession.

SIBLING: Related animals of the same generation. Half or full brothers/sisters.

SILAGE: Prepared by chopping green forage (grass, legumes, field corn, etc.) into an airtight chamber, where it is compressed to exclude air and undergoes an acid fermentation that retards spoilage. Contains about 65 percent moisture; 3 lbs. of silage is equal to 1 lb. of hay nutritionally.

SIRE: The male parent of an animal.

SLAUGHTERHOUSE: A place where animals marketed for meat are killed humanely.

SPRINGER: A cow in calf, i.e., due to calve soon.

STAG: An animal castrated at or near maturity after having developed definite masculine characteristics.

SUPPLEMENTING: Supplying additional nutrients to animals on poor feed such as dry range.

TANKAGE: A byproduct from meat packing houses, used as a food for animals. It is rich in protein.

TOTAL DIGESTIBLE NUTRIENTS (TDN): The sum of all nutrients in a feed that are digested by the animal.

TYPE: A livestock term that denotes an ideal or standard of perfection combining all the characteristics which contribute to the animal's value and efficiency for the purpose specified.

UDDER: Group of secretory mammary glands provided with two or more teats, using nutrients from the blood; produces milk.

VACCINATION: The process of artificially immunizing an individual with a biologic material to establish immunity against an infectious disease.

VISCERA: The internal organs of the body.

ZOONOSES: Those pathogenic infectious diseases that can be transmitted between vertebrate animals and man.

Beef Cattle Division

ABERDEEN ANGUS: (Usually called Angus) Breed of beef cattle originating in Northeastern Scotland. They are black, polled early maturing cattle, noted for carcass quality.

BABY BEEF: Steers, 15 months old or under, that have been force-fed from birth. They usually are well bred and weigh not over 1,000 pounds.

BACKGROUNDING: The preparation of young cattle for the feedlot, getting them accustomed to confinement facilities and feeds. Also, the drylot growing of stocker calves with harvested forage feeds.

BARK: The fat covering on a carcass.

BEEF CATTLE: Breeds of cattle suitable for meat production, usually rectangular in body shape, with broad back and loins and heavy rumps.

BOVINE: Pertaining to cattle.

BRAHMA: Breed of beef cattle originating in Asiatic countries. Large boned, heavy beef type introduced primarily for cross breeding with other beef breeds. Adapted to hot climatic conditions.

BREEDS OF BEEF CATTLE:

English Origin:	Aberdeen Angus, Hereford, Shorthorn.
European Origin:	Charolais, Chianina, Gelbvieh, Limousin, Maine-Anjou, Simmental.
Asian Origin:	Brahma.
United States Developed:	Brangus, Beefmaster, Santa Gertrudis, Red Angus.

BUTTON: A small protuberance, like a button, as horn buttons on small calves.

CALF: Young (up to yearling or sexual maturity) animal of the bovine species.

CATALO: Crossbred animal of the American Bison and domestic cattle.

DOGIE: A stray or motherless calf; an orphan.

DWARFISM: A mongoloid-type malformation of the fetus, causing the young to be deformed at birth. Dwarfism has become a problem primarily with the beef breeds of cattle. Although some experts still associate dwarfism with poor diets during pregnancy, the general opinion is that dwarfism is carried by a recessive gene. It can occur only when both parents carry the dwarf gene.

EXOTICS: Different, unusual, new. Term being used to designate the cattle breeds that have recently been introduced into the beef cattle industry of the United

States. Actually, these breeds are “old” established breeds in their country of origin. Presently called “Continental” since most come from the European Continent.

FED CATTLE: Slaughter cattle (usually steers and heifers) that have been finished on concentrated feed.

FEED LOTS:

1. Dry Lot Feeding: Feeding process wherein cattle are confined in a small area and fed carefully mixed, high-concentrate feed to fatten them.
2. Farm Feed Lot: Where cattle feeding is complementary with other farming enterprises.
3. Commercial Feed Lot: Where cattle are fed for others on a custom basis. Feed usually is purchased, labor is hired.

FEEDERS: Cattle, ready to be finished for market, weighing 550 to 650 pounds or heavier. Usually yearlings with a big frame.

FEEDING MARGIN: The difference between the cost of the feeder animal—plus the cost of gain—and the value of the animal when sold for slaughter.

HEIFER: Young (less than 3 years) female of the cattle species that has not borne a calf.

HEREFORD: Breed of beef cattle originating in England. This breed is red-bodied, horned or polled cattle with white faces. White color is also found on the underlining flank, crest, switch, brisket, below the knee and on the hock.

IMPLANT: The act of placing a growth stimulant pellet under the skin of an animal.

MAVERICK: An unbranded animal, especially an unbranded calf.

NURSE COW: Milk cows used to furnish milk for feeding calves other than their own.

POLLED: Born without horns, i.e., Polled Hereford. Poll also refers to the raised portion on the top of the head of cattle.

PRE-CONDITION: Management practices of the calf raiser in preparing weaned calves for the feedlot to avoid (prevent) diseases and stress.

RUMENSIN: Nonhormone, fermentation product used for ruminant animals to more efficiently use volatile fatty acids as energy. Improves the conversion of feed to body gain.

SANTA GERTRUDIS: Breed of beef cattle developed by King Ranch in Texas. Heavy conformation, well adapted to meat production. Have characteristic hump over front shoulders from Brahma ancestry. Dark red in color. Well adapted to hot, dry pastures and considered good foragers.

SHORTHORN: Breed of beef cattle originating along the Tees River in Northeast England. Shorthorns are considered the largest of the three English breeds and may be red, white or roan. Shorthorn cows are good mothers and heavy milkers. Sometimes called "Durhams."

SPAYING: Removal of ovaries from females. Heifers are usually spayed when the animal is young, resulting in better meat production.

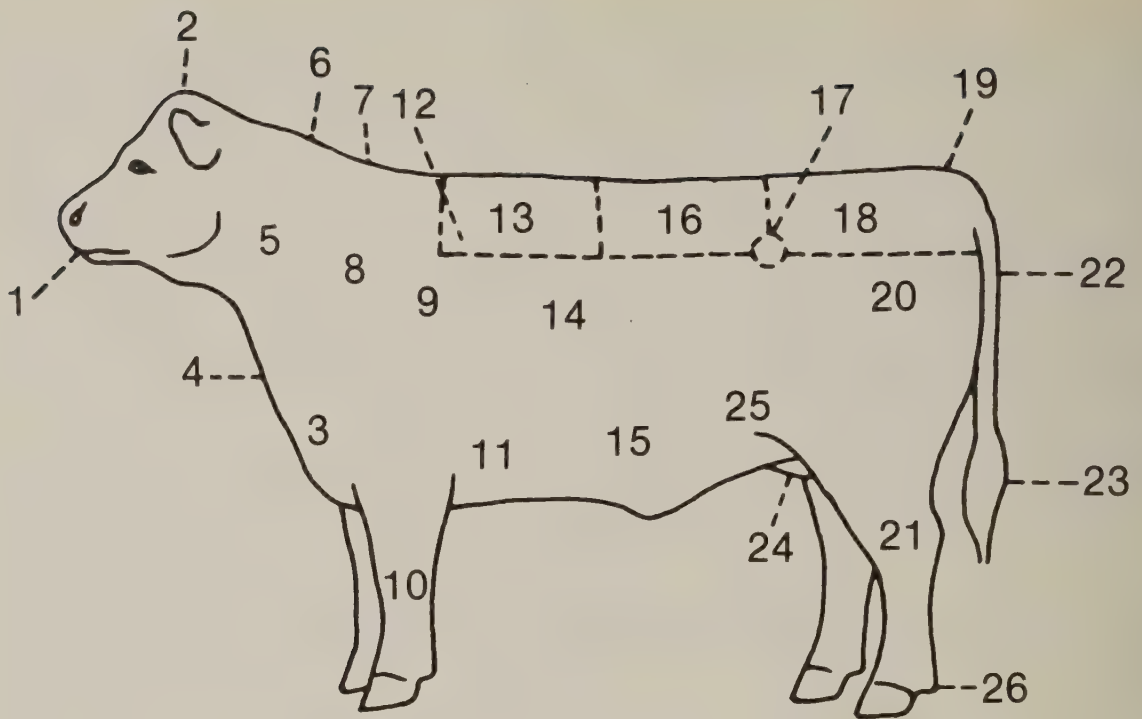
STEER: A castrated bull calf. This usually is done while the calf is small, for better quality beef production. When castrated later in life, the animal may be called a "stag" or "staggy."

STOCKER CALVES: Young growing animals on pasture with very little other feed. Normal weight of steers on pasture is 400 to 550 pounds, with the average at 450 pounds.

TATTOO: Means of permanent identification, usually in the ear. Use of "Dies" (sharp needles) in the form of letters-numbers and indelible ink.

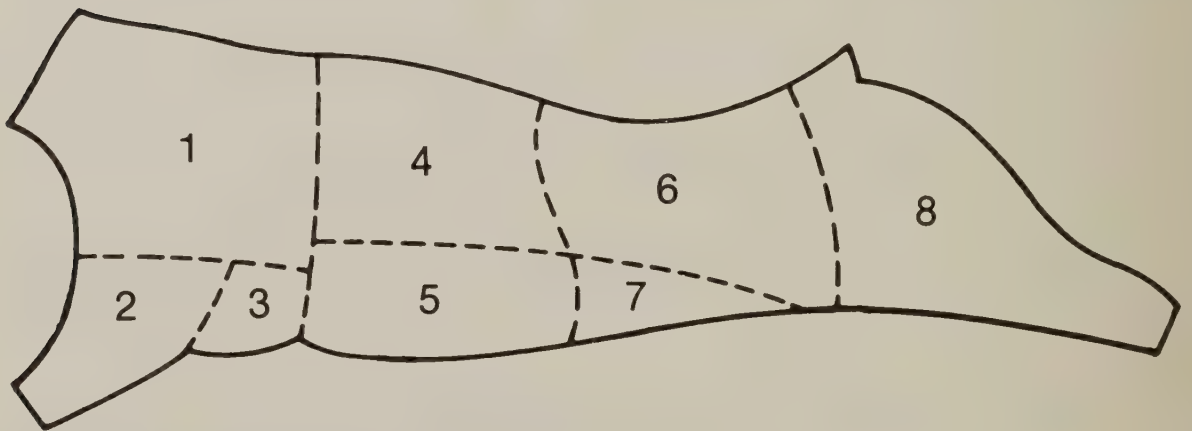
TRIPE: Walls of the cattle stomach (rumen and reticulum) used as human food.

VEALER: Calves fed (usually only milk) for early slaughter, usually less than 4 months and 350 pounds.



Points of the Steer

- | | | | |
|-------------------------|----------------|---------------------|----------------|
| 1. Muzzle | 8. Shoulder | 14. Ribs | 21. Hock |
| 2. Poll | 9. Fore rib | 15. Paunch or belly | 22. Tail |
| 3. Brisket | 10. Shank | 16. Loin | 23. Switch |
| 4. Dewlap | 11. Fore flank | 17. Hip or hook | 24. Cod |
| 5. Neck | 12. Crops | 18. Rump | 25. Hind flank |
| 6. Crest | 13. Back | 19. Tail head | 26. Dew claw |
| 7. Top of the shoulders | | 20. Thigh | |



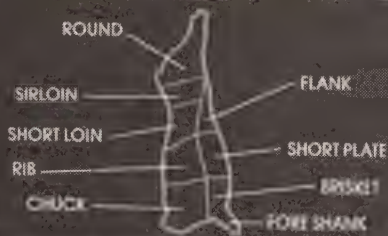
Wholesale Cuts of Beef

1. Chuck	26.8%	6. Loin	17.2%
2. Shank	3.1%	7. Flank	5.2%
3. Brisket	3.8%	8. Round	22.4%
4. Rib	9.6%	9. Miscellaneous	3.6%
5. Plate	8.3%		

Liver Steer	1000 lbs.
Carcass	615 lbs.
Salable beef	432 lbs.

Beef

• RETAIL CUTS •
WHERE THEY COME FROM
HOW TO COOK THEM



Round Steak
Braise, Panfry

Top Round Roast
Roast

Top Round Steak
Broil, Panbroil, Panfry

Boneless Rump Roast
Roast, Braise

Bottom Round Roast
Braise, Roast

Tip Roast, Cap Off
Roast, Braise

Eye Round Roast
Braise, Roast

Tip Steak
Broil, Panbroil, Panfry

ROUND

Sirloin Steak, Flat Bone
Broil, Panbroil, Panfry

Sirloin Steak, Round Bone
Broil, Panbroil, Panfry

Top Sirloin Steak
Broil, Panbroil, Panfry

SIRLOIN

Shank Cross Cut
Braise, Cook in Liquid

Brisket, Whole
Braise, Cook in Liquid

Corned Brisket, Point Half
Braise, Cook in Liquid

Brisket, Flat Half
Braise

FORE SHANK & BRISKET

Chuck Eye Roast
Braise, Roast

Boneless Top Blade Steak
Braise, Panfry

Arm Pot Roast
Braise

Boneless Shoulder Pot Roast
Braise

Cross Rib Pot Roast
Braise

Mock Tender
Braise

Blade Roast
Braise

Under Blade Pot Roast
Braise, Roast

Short Ribs
Braise, Cook in Liquid

7-Bone Pot Roast
Braise

Flanken-Style Ribs
Braise, Cook in Liquid

CHUCK

THIS CHART APPROVED BY
NATIONAL LIVE STOCK & MEAT BOARD



Boneless Top Loin Steak
Broil, Panbroil, Panfry

T-Bone Steak
Broil, Panbroil, Panfry

Porterhouse Steak
Broil, Panbroil, Panfry

Tenderloin Roast
Roast, Broil

Tenderloin Steak
Broil, Panbroil, Panfry

SHORT LOIN

Rib Roast, Large End
Roast

Rib Roast, Small End
Roast

Rib Steak, Small End
Broil, Panbroil, Panfry

Rib Eye Steak
Broil, Panbroil, Panfry

Rib Eye Roast
Roast

Back Ribs
Braise, Cook in Liquid, Roast

RIB

Flank Steak
Broil, Braise, Panfry

Flank Steak Rolls
Braise, Broil, Panbroil, Panfry

Skirt Steak
Braise, Broil, Panbroil, Panfry

FLANK & SHORT PLATE

Ground Beef
Broil, Panfry, Panbroil, Roast (Duke)

Cubed Steak
Panfry, Braise

Beef for Stew
Braise, Cook in Liquid

Cubes for Kabobs
Broil, Braise

OTHER CUTS

Chart courtesy National Live Stock and Meat Board, Chicago 60611

Dairy Cattle Division

AYRSHIRE: A breed of red and white dairy cattle, originating in Scotland. They are medium in size. Good “hill grazers.”

BABCOCK TEST: A test for butterfat quantity in milk and milk products.

BLEND PRICE: The blend price is determined by the percentage of producers milk sold for Class I, Class II, Class III and Class IV usage. There is a separate price for each of the four classes.

- | | |
|-----------|--|
| Class I | Comprises all market milk or derivatives consumed in fluid form. |
| Class II | Comprises any fluid milk, fluid skim milk, or fluid cream which is used in the manufacture of any product except any such product which is included in Class I, Class III or Class IV. |
| Class III | Comprises all fluid milk, fluid skim milk or fluid cream which is supplied to consumers as condensed milk, condensed skim milk, evaporated skim milk, evaporated cream or clotted cream, or evaporated milk, including condensed skim milk used in the manufacture of frozen dairy products. |
| Class IV | Comprises all fluid milk, fluid skim milk, or fluid cream which is used in the manufacture of butter, cheese (other than cottage cheese), dried milk, dried skim milk, nonfat dry milk solids, defatted milk solids, dried buttermilk, etc. |

BROWN SWISS: A breed of dairy cattle originating in Switzerland. Their color varies from dark to light brown, approaching gray. This breed averages a good yield of milk, testing about 4 percent butterfat.

BUTTERFAT: The fat found in milk.

CLASSIFICATION OF CATTLE FOR TYPE: The placing of a type score on individual animals in a herd by an experienced and capable classifier. The rating system is based on a standard of perfection combining all the characteristics which contribute to the animal’s value.

COLD WALL STORAGE TANK: A milk storage tank in which a refrigerant is circulated in the walls—ammonia or freon.

CONDENSERY: A plant or factory where condensed or evaporated milk is produced.

DHIA: The Dairy Herd Improvement Association is a cooperative association of milk producers organized for the primary purpose of cow testing to provide each member with milk and butterfat production records on individual cows in the herd.

Many associations are now conducting monthly mastitis tests for members, and several are considering providing solids—not-fat testing services.

DRY COW: A cow that is not producing milk, the period before the next calving and lactation.

DRYING OFF: Procedure of making a cow dry before freshening. This is usually done 6 to 8 weeks before the cow is due to freshen.

DUTCH BELT: A breed of dairy cattle originating in the Netherlands. Color is jet black except for the distinctive white belt starting behind the shoulders and ending before the hips. Color pattern is fairly consistent.

EDP: Electronic data processing of DHIA records to give the herd manager more management information.

FRESHEN: To give birth to a calf and begin a lactation period.

GRADE A DAIRY: A dairy that produces market milk (for human drinking purposes) under State-approved sanitation conditions according to State controlled pooling laws. Milking barn and milk-handling equipment must meet certain State regulations.

GRADE B DAIRY: A dairy that produces milk for use in making cheese, ice cream and condensed and powdered milk. Sanitation requirements are not as strict as for Grade A production. The milk cannot be sold for fresh market consumption.

GUERNSEY: A breed of dairy cattle originating in the Channel Islands near the Northern coast of France. Their color is fawn and white, with fawn predominating. The milk is generally a rich color.

HARDWARE DISEASE: A term commonly used to describe a condition caused by an animal's eating metal objects of one sort or another. The sharp metal objects work their way down the digestive system and may cause punctures through the stomach wall into the heart. Sometimes surgery may save the animal.

HERDMATES: Group of nonrelated (paternal, sire) cows that are compared to the daughters of a sire for differences in milk production. Herdmates are in the same herd at the same time (similar environmental conditions); thus any difference in production is due to genetics.

HERRINGBONE MILKING PARLOR: A raised, zigzag-designed milking stall which allows the group milking of several cows at the same time. The person doing the milking is in a pit, thus does not have to bend or stoop and walk a long distance as in an in-line parlor.

HOLSTEIN-FRIESIAN: (usually called Holstein): Breed of dairy cattle developed in the Netherlands. Generally large-framed, the breed is black and white in

color. Also red and white resulting from a double recessive gene factor. Holstein-Friesians are heavy producers of milk, but usually it has less butterfat content than that of some other dairy breeds.

HOMOGENIZATION: Process in which fat particles of the milk are broken up into such small divisions that they will not rise. They stay evenly spread throughout the milk.

JERSEY: Breed of dairy cattle developed on Jersey, one of the Channel Islands. It is one of the smallest dairy breeds. Colors range from fawn through shades of mouse-gray, brown, with some approaching black. Milk has a high average butterfat content.

KETOSIS: A condition of abnormally high concentration of acetone bodies in the body tissues and fluids.

LACTATION PERIOD: The length of time a female gives milk following birth of offspring—usually with reference to dairy cows and milk goats.

MASTITIS: A disease of the cow's udder resulting from infection by microorganisms. The infection may be caused by improper milking procedures.

MATURE EQUIVALENT: Age conversion formulas that predict the expected mature potential milk production of young cows.

MILK (average composition): Milk contains on the average, the following: Fat—3.9%; Albumin—.7%; Casein—2.5%; Lactose—5.1%; Mineral matter—.7%; and Water—87.1%.

MILK CONTRACT: A contractual agreement between the producer and the purchaser of milk, either market or manufacturing.

MILK FAT CONTENT:

Non-Fat Milk	All butterfat removed
Low-Fat Milk	Tests 2% butterfat
Whole Milk	Usually standardized to 3.5% butterfat
Half and Half:	Tests about 10% to 12% butterfat.
Whipping Cream	Should contain from 32% to 40% butterfat and should be aged at least 24 hours at a temperature between 40 and 50 degrees F.
Coffee Cream:	Usually homogenized and tests about 20% butterfat.

MILK FEVER: Disease usually occurring soon after calving due to calcium deficiency. The animal becomes partially paralyzed, may lose consciousness and die. Heavy milkers appear to be most susceptible.

MILK SOLIDS—NOT-FAT: The total solids present in milk, less the butterfat. The solids are albumin, casein, lactose and mineral matter.

MILKING SHORTHORN: Dual purpose breed of cattle—beef and dairy.

PASTEURIZATION: A process of treatment of milk through heat that kills all harmful bacteria, without changing its physical or chemical composition.

PHYSICAL TRAITS EVALUATION: A program that evaluates 10 characteristics of a dairy cow and provides the owner with phenotypic information for improvement of breeding (offspring) and management (individual production). These characteristics are: stature, strength, fore udder, rear udder, teats, thiel, legs, feet, disposition, and milkout, and are associated with and affect the amount of milk production.

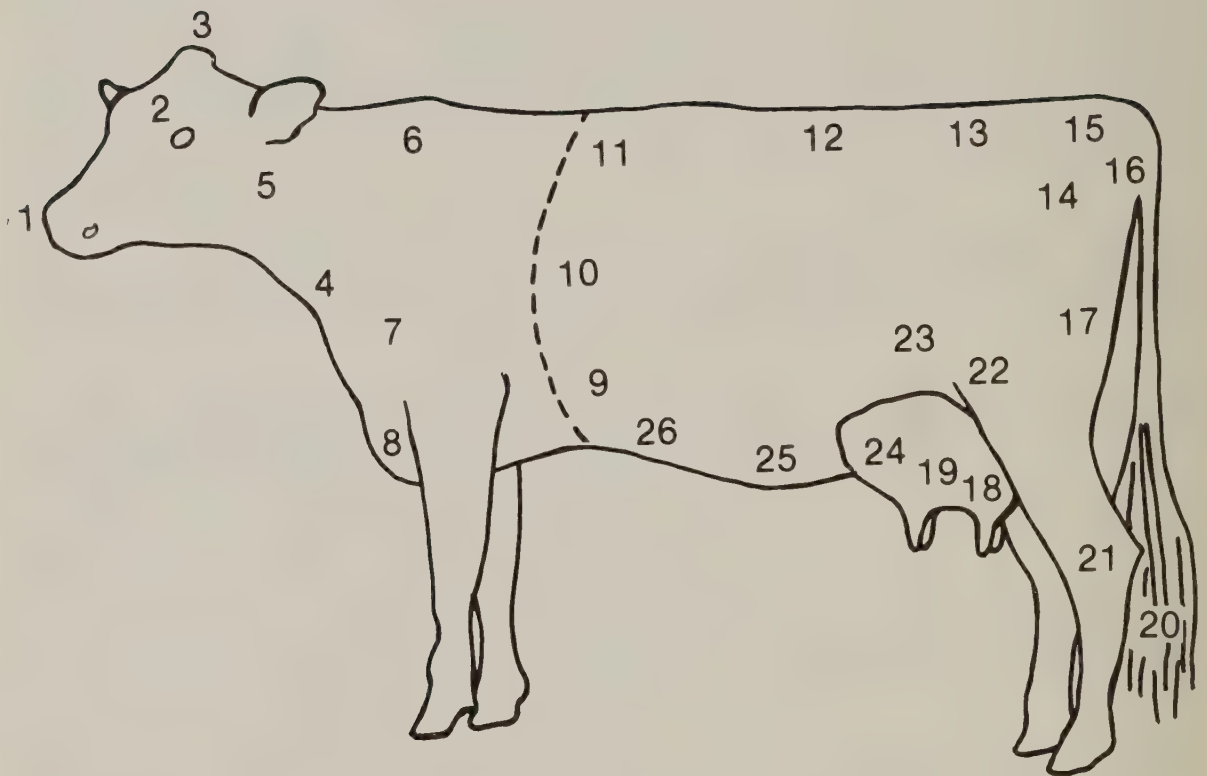
PREDICTED DIFFERENCE: Estimate of genetic transmitting ability of a dairy bull; the amount of milk production that his daughters will (on the average) exceed their herdmates in breed average herds throughout the U.S.

REPEATABILITY: The “reliability” of the predicted difference of the sire’s progeny production. The larger the number of daughters in herds, the higher the repeatability. This removes the “bias” of selected small numbers and favorable conditions.

SIRE SUMMARY: Biannual publication of U.S. Department of Agriculture listing current data on sire progeny productivity.

STANDARDIZATION: The process of adjusting the butterfat and solids non-fat content of milk to meet a required standard. In California, whole milk must contain a minimum of 3.5% butterfat and 8.7% solids—not-fat.

WEIGHT OF MILK: The conversion of gallons into pounds. One gallon of milk weighs approximately 8.6 pounds.



Points of the Dairy Type Cow

- | | | | |
|--------------|-----------------|---------------------------------|----------------|
| 1. Muzzle | 8. Brisket | 15. Tail setting | 20. Switch |
| 2. Forehead | 9. Chest | 16. Pin bones | 21. Hocks |
| 3. Poll | 10. Heart girth | (13-16 rump) | 22. Stifle |
| 4. Dewlap | 11. Crops | 17. Thighs | 23. Flank |
| 5. Neck | 12. Loins | 18. Rear attachment
of udder | 24. Fore udder |
| 6. Withers | 13. Hips | 19. Udder | 25. Milk veins |
| 7. Shoulders | 14. Thurls | | 26. Milk wells |

Sheep Division

BAND: Flock of sheep. Large flocks are often broken up into separate bands for easier handling, such as yearling band, aged band, drop band, etc.

BLACKFACE: A sheep with some black markings on its face, indicating Suffolk or Hampshire crossbreeding.

BLOW FLY: Fly which lays eggs on wet areas of sheep, usually around the tail. The eggs hatch and the larvae eat the flesh of the animal.

BLUE BAG: Severe case of mastitis resulting in rotting away of udder tissue. (See Mastitis.)

BOOTING AND FACING: The shearing of the face and legs up to the knees of lambs (sometimes ewes) to prevent “stickers” from getting into the skin of the lambs in the spring after the forage has gone to seed.

BREECH BIRTH: The lamb, at birth, is positioned tail first and ewe usually needs assistance in lambing.

BREEDS OF SHEEP:

Fine Wool: Merino, Rambouillet

Medium Wool: Mutton—Southdown, Shropshire, Hampshire, Suffolk,
Dorset, Oxford, Cheviot
Dual purpose—Corriedale, Columbia, Romeldale,
Targhee

Long Wool: Lincoln, Romney, Leicester

BROKEN MOUTH: A sheep that has begun to lose its incisors. (Usually past 4 years of age).

BROWSING: Eating trees or shrubs.

BUMMER LAMB: An orphan lamb which subsists by stealing milk from ewes other than its mother. Usually can be identified by stained head and neck because it approaches the ewes from the back and is stained from manure.

BUN: Blood urea nitrogen analysis used to determine protein intake.

BURDIZZO: Plier-like instrument used for castration and removing tails.

COCCIDIOSIS: A protozoan that causes severe diarrhea and oftentimes death in lambs.

CREEP FEEDING: Grazing through fences especially constructed so that the lambs can precede their mothers in grazing a pasture during the nursing period.

CRIMP: The natural wave in the wool fiber.

CRUTCHING: Removing wool from around anus, vulva and udder. (Also called Tagging)

DIPPING: Submerging an animal in a solution of insecticide to control external parasites.

DOCKING: Removing the tail for sanitation purposes.

DRENCHING: Administering a medication into the throat, usually for treatment of internal parasites.

DROP SHED: Structure where lambing ewes are housed. (Also called drop pen)

EAE: Endemic abortion of ewes. (Also called Enzootic abortion of ewes) This is an infectious disease of sheep resulting in abortion and sometimes stillbirth or premature lambing.

ELASTRATOR: Instrument used to apply special rubber bands to tail and scrotum for docking and castrating.

EMASCULATOR: An instrument which cuts and crushes, used for docking and castrating.

ENTEROTOXEMIA: See Pulpy Kidney.

ENTROPION: An hereditary deformity of the eyelid in which the eyelid margins are turned in. Must be corrected surgically.

EWE: The female sheep, any age.

FEEDERS: Sheep ready to be finished for market, usually 60 to 70 pounds.

FLEECE: Shorn wool from one sheep.

FLUSHING: The practice of giving ewes extra or improved feed about 2 weeks before the breeding season so they will be gaining weight when rams are turned in with them. This stimulates ovulation which results in a higher percentage of multiple births.

FLYSTRIKE: The condition resulting from an infestation of Blow Flies which lay eggs on wet areas of sheep around tail. Hatched larvae eat the flesh of the animal.

FORMALIN: A disinfectant produced by diluting formaldehyde and water. Used for treating footrot and prevention of development of bacteria in milk fed to orphan lambs.

FOUR-TOOTH: A 2 year-old sheep.

FULL-MOUTH: A sheep with all its incisor teeth, 4 years old or older.

GOATS:

Angora Breed: Kept for meat and mohair products and grazing brushy areas of range.

Dairy Breeds: Kept for milk products primarily, also meat. American Lamoncha, French Alpine, Nubian, Saanen, and Toggenburg.

Buck: Male Goat.

Chevon: Meat from young goats.

Doe: Female goat.

Kid: Young, immature goat, either sex.

Kidding: Parturition of the pregnant female goat.

GRADES OF LAMB:

US Prime

US Choice

US Good

US Utility

GRAFTED LAMB: An “adopted” lamb which a ewe has been forced to accept.

GREASE WEIGHT: Weight of the wool before washing.

GUMMERS: Old sheep which have lost all their incisor teeth.

HOOT-NANNY: Shearing blade grinding jig.

JAIL: A small pen for holding ewe and her newborn lamb or lambs. (Also called Jug)

LAMB: A sheep less than 1 year old. The meat from a young sheep of one year or less.

LAMBING: Giving birth to a lamb or lambs.

LANOLIN: A wax secreted by the sheep to protect the wool fiber. Used extensively in cosmetics.

MASTITIS: Inflammation of the mammary gland caused by infection. (See Blue Bag.)

MOHAIR: The long, lustrous fleece covering the Angora goat, used for special kinds of cloth.

MOUTON: A fur made by chemical treatment and processing of sheep pelts.

OLD CROPPER: A lamb held over to the next growing season, usually a wether.

ORPHAN: Lamb without a mother.

OVINE: An animal of the subfamily Ovidae—sheep.

PARASITES: Organisms that live on or in sheep, cattle or other hosts.

PELT: The skin and wool from slaughtered sheep.

PROLAPSE, RECTAL: A condition where the anus muscles allow the large intestine to protude externally.

PROAPSE, UTERINE: A condtion where the uterus turns inside out during lambing.

PROLAPSE, VAGINAL: A condition where the weak vaginal muscles allow the vagina to protrude externally.

PULLED WOOL: Wool removed from the pelt after slaughter.

PULPY KIDNEY: Disease resulting from too many bacteria, producing a toxin resulting in death. (Also referred to as Overeating Disease or Enterotoxemia)

RAM: A breeding male sheep of any age.

REPLACEMENT: Sheep of either sex saved to add to breeding flock.

SCOURING: Washing the shorn fleece. Also used to describe diarrhea in sheep.

SCRAPIE:An unidentifiable organism causing a disease of the nervous system, characterized by itching and nervous movement of the mouth. (Must be reported to the State Veterinarian)

SHEARING: Removal of wool.

SHEARLING: A yearling.

SHEPHERD: A person who takes care of sheep. (Also called Herdsman or Shepherder)

SHORT-MOUTH: A sheep 5 years old or older, with short teeth. (Aslo called a Spreader)

SORE MOUTH: A viral infection affecting lips of sheep. It can be transferred to ewes' udders by nursing lambs.

STICKERS: Seeds and awns which catch in wool and often penetrate skin.

STILL BIRTH: Giving birth to a dead lamb.

TAGGING: Removing wool from around anus, vulva, and udders of ewe. (Also called Crutching)

TWO-TOOTH: A yearling whose central pair of incisors are in place, having replaced the lamb's teeth: yearling.

TWO-YEAR-OLD: Any sheep between 24 and 36 months old.

VIBRIO: Bacteria causing abortion.

VIRGIN WOOL: Wool yarn or fabric which has not been reprocessed.

WEANING: Permanently separating lambs from their mothers.

WETHER: A castrated male sheep.

WHITEFACE: A sheep of any of the white-faced breeds (Rambouillet, Corriedale, Columbia, Dorset, etc.) usually used as the foundation of the ewe breeding stock.

WIGGING: Shearing wool from around eyes and face.

WOOL: The crimped, serrated covering that grows through and out of the skin of sheep.

WOOL BAG: A burlap bag of standard measurement (41 × 89 in.) for marketing wool.

WOOL GRADES:

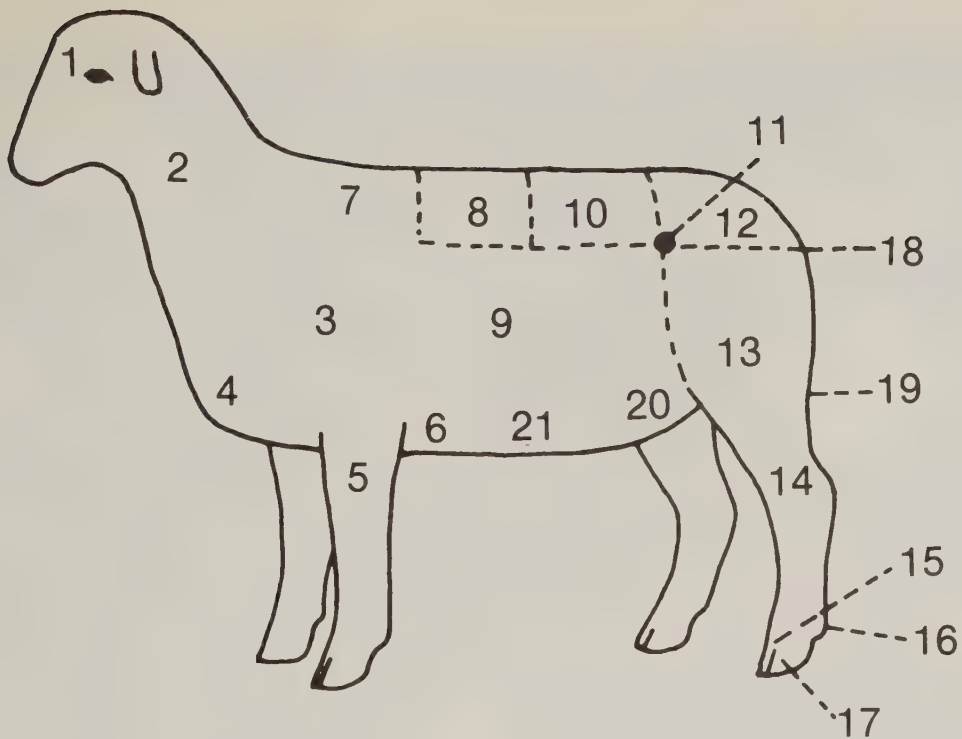
<i>American System</i> ¹	<i>Spinning Count</i> ²	<i>Average fiber diameter</i> (microns)
Fine	80	17.7–19.1
	70	19.2–20.5
	64	20.6–22.0
½ blood	62	22.1–23.4
	60	23.5–24.9
¾ blood	58	25.0–26.4
	56	26.5–27.8
¼ blood	54	27.9–29.3
	50	29.4–30.9
	48	31.0–32.6
Low ¼ blood	46	32.7–34.3
Common	44	34.4–36.1
Braid	40	36.2–38.0
	36	38.1–40.2)

¹ Proportion of Rambouillet breeding

² Spinning count refers to number of hanks (560 yards) of yarn that can be spun from 1 pound of clean wool.

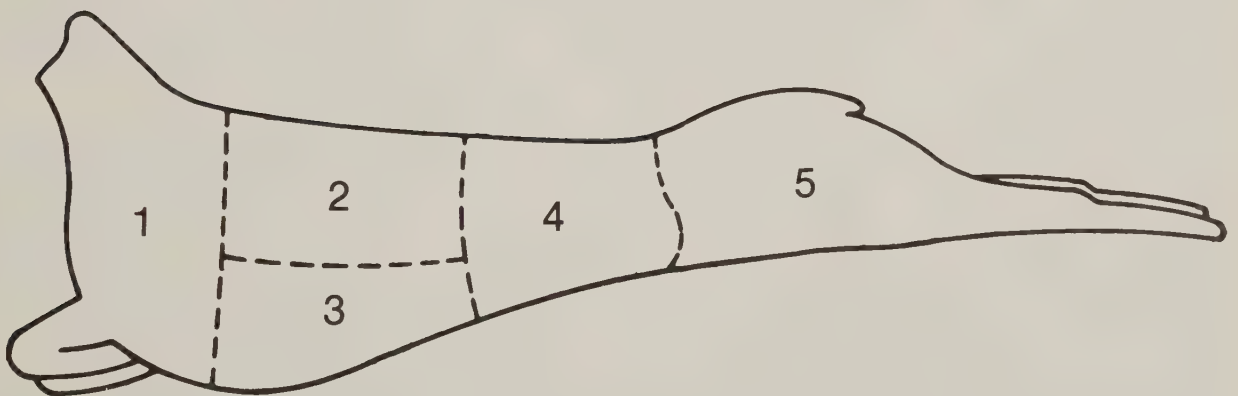
YIELD: Percent of clean wool.

YOLK: The lanolin and other fats and waxes secreted which show up as grease in the wool.



Points of the Sheep

- | | | | |
|-------------|---------------------------|-------------|----------------|
| 1. Forehead | 6. Fore flank | 11. Hip | 16. Dew claw |
| 2. Neck | 7. Top of shoulder | 12. Rump | 17. Foot |
| 3. Shoulder | 8. Back | 13. Thigh | 18. Dock |
| 4. Breast | 9. Ribs | 14. Hindleg | 19. Twist |
| 5. Foreleg | 10. Loin | 15. Pastern | 20. Hind flank |
| | (13 and 19—leg of mutton) | | 21. Belly |



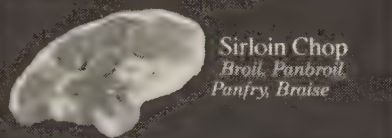
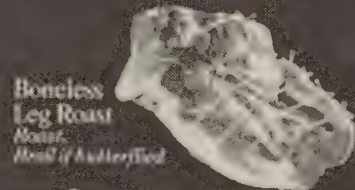
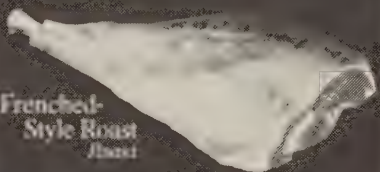
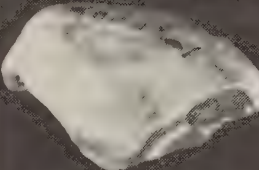
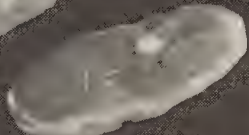
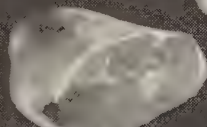
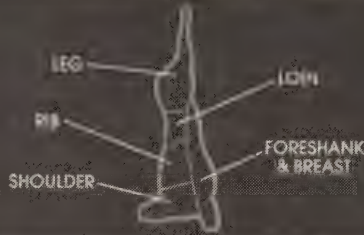
Wholesale Cuts of Lamb

- | | | | |
|-------------|-----|-----------------------|-----|
| 1. Shoulder | 26% | 4. Loin | 9% |
| 2. Rack | 7% | 5. Leg | 29% |
| 3. Breast | 19% | (Bone, fat waste 10%) | |

Live lamb	100 lbs.
Carcass	50 lbs.
Salable meat	45 lbs.

Lamb

• RETAIL CUTS •
WHERE THEY COME FROM
HOW TO COOK THEM



LEG

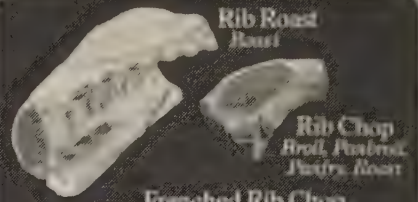


LOIN

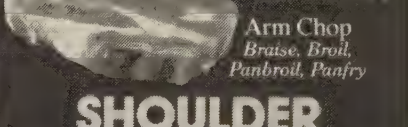
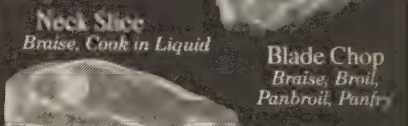


FORESHANK & BREAST

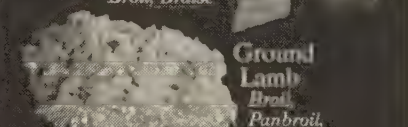
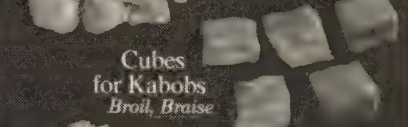
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RIB



SHOULDER



OTHER CUTS

Chapter V

Swine Division

BARROW: A castrated young male pig.

BOAR: A breeding male hog, any age.

BREEDS OF SWINE:

Meat Type: Berkshire, Chester White, Duroc, Hampshire, Poland China, and Spotted.

Bacon Type: Yorkshire, Tamworth, and Landrace.

FARROW: Parturition (giving birth) of the pregnant sow.

FARROWING CRATE:: Equipment to restrict the movement of the sow during farrowing and lactation to protect the piglets.

FEEDERS:: Hogs of various weights ready to be finished for market.

GILT: Young female hog, usually under 12 months of age.

GRADES OF SWINE:

US No. 1	US No. 3	Utility
US No. 2	US No. 4	

HOG OFF: To put hogs out to pasture on a crop to clean up the field.

LARD: Rendered fat from pork carcasses.

LITTER: A group of offspring born at the same time by one sow.

MARKET HOG: Barrow or gilt ready for slaughter, 190 to 240 pounds.

PIG: A young swine weighing less than 120 pounds.

PROCINE: Pertaining to swine.

RAZORBACK: A “poor” quality type of swine—long legged, sharp, narrow back, lean body; usually a half-wild mongrel breed.

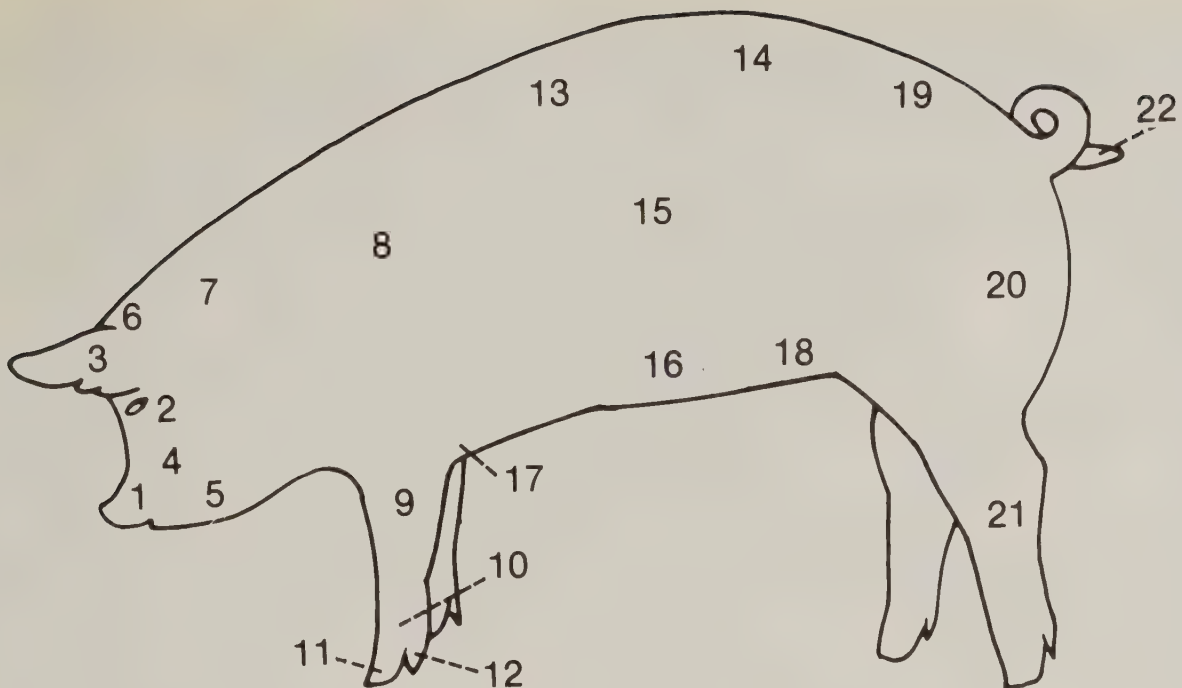
ROASTING PIG: A milk-fat pig weighing from 60 to 100 pounds.

RUNT: Term commonly used to describe a piglet of small size and poor quality, result of genetics and/or lack of milk.

SELF FEEDER: Equipment to offer feed “free-choice” to pigs (sometimes used for breeding stock).

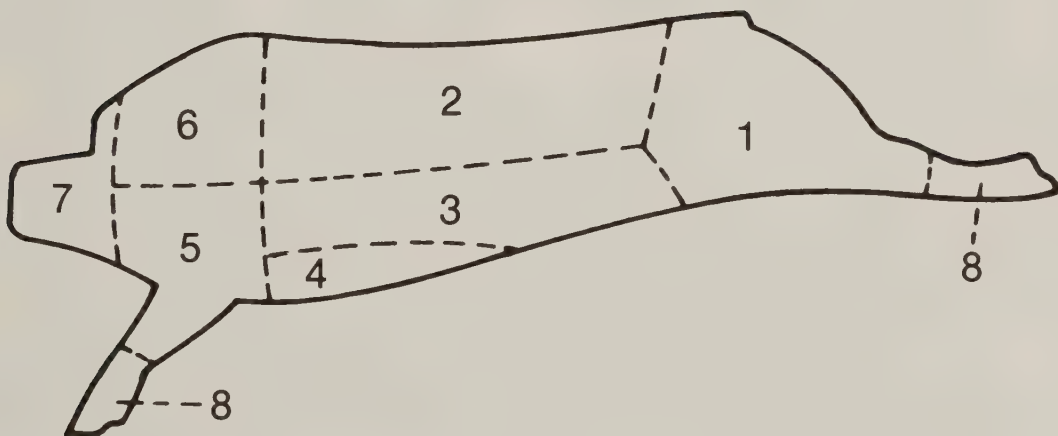
SHOAT:: A young pig of either sex, usually from weaning up to 5 months, weighing from 50 to 160 pounds.

SOW: Mature female hog.



Points of the Swine

- | | | | |
|----------|--------------|----------------|----------------|
| 1. Snout | 7. Neck | 13. Back | 18. Hind flank |
| 2. Eye | 8. Shoulder | 14. Loin | 19. Rump |
| 3. Ear | 9. Foreleg | 15. Side | 20. Ham |
| 4. Check | 10. Pastern | 16. Belly | 21. Hind leg |
| 5. Jowl | 11. Toes | 17. Fore flank | 22. Tail |
| 6. Poll | 12. Dew claw | | |



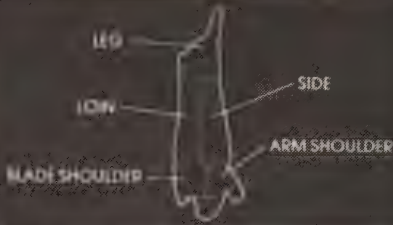
Wholesale Cuts of Pork

1. Ham	21%	5. Picnic	}	15.4%
2. Loin	18%	6. Boston Butt		
3. Bacon or belly	}	7. Jowl	}	24.5%
4. Spareribs		21.1%		
		Miscellaneous Lard		

Live hog	210 lbs.
Carcass	150 lbs.
Salable meat	120 lbs.

Pork

• RETAIL CUTS •
WHERE THEY COME FROM
HOW TO COOK THEM



Blade Chop
Braise, Broil, Panbroil,
Panfry

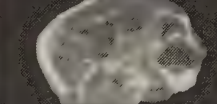
Rib Chop
Broil, Panbroil,
Roast, Braise



Top Loin Chop
Broil, Panbroil, Panfry,
Braise



Loin Chop
Broil, Panbroil,
Panfry, Braise



Sirloin Chop
Braise



Butterfly Chop
Broil, Panbroil,
Panfry, Braise



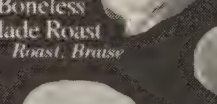
Back Ribs
Roast, Broil,
Braise, Cook
in Liquid



Tenderloin
Roast, Braise,
Broil, Panfry,
Braise



Top Loin Roast (Double)
Roast



Boneless Blade Roast
Roast, Braise



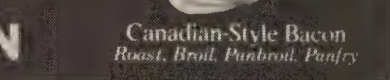
Center Loin Roast



Smoked Loin Chop
Roast, Broil,
Panbroil, Panfry



Canadian-Style Bacon
Roast, Broil, Panbroil, Panfry



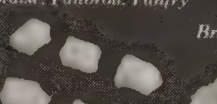
Canadian-Style Bacon
Roast, Broil, Panbroil, Panfry



Cubed Steak
Braise, Panbroil, Panfry



Pork Pieces
Braise, Cook in Liquid



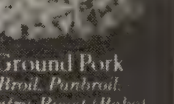
Cubes for Kabobs
Broil, Braise



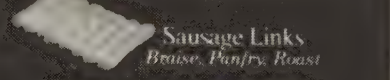
Ground Pork
Broil, Panbroil,
Panfry, Roast (Bake)



Sausage Links
Braise, Panfry, Roast



Sausage Links
Braise, Panfry, Roast

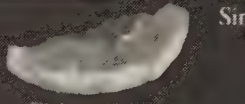


Sausage Links
Braise, Panfry, Roast

OTHER CUTS



Country-Style Ribs
Roast, Braise, Broil,
Cook in Liquid



Sirloin Cutlet
Braise, Broil, Panbroil,
Panfry



Center Rib Roast
Roast



Blade Roast
Roast, Braise



Sirloin Roast
Roast



Crown Roast
Roast



Boneless Sirloin Roast
Roast



Spareribs
Roast, Broil, Cook in Liquid,
Braise



Sliced Bacon
Panfry, Broil,
Roast (Bake)



Sliced Bacon
Panfry, Broil,
Roast (Bake)



Sliced Bacon
Panfry, Broil,
Roast (Bake)



Sliced Bacon
Panfry, Broil,
Roast (Bake)

OTHER CUTS



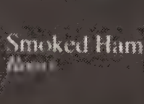
Leg Cutlet
Panfry, Braise,
Broil, Panbroil



Top Leg (Inside) Roast
Roast, Braise



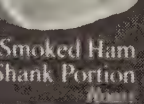
Smoked Ham
Roast



Smoked Ham Shank Portion
Roast



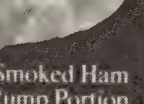
Smoked Ham Center Slice
Broil, Panbroil,
Panfry, Roast



Smoked Ham Rump Portion
Roast



Canned Ham
Roast



Boneless Smoked Ham
Roast

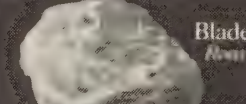


Sliced Ham
Panfry, Panbroil,
Roast



Sliced Ham
Panfry, Panbroil,
Roast

LEG/HAM



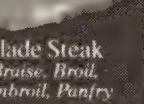
Blade Roast
Roast, Braise



Blade Steak
Braise, Broil,
Panbroil, Panfry



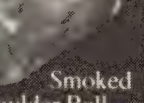
Boneless Blade Roast
Roast, Braise



Smoked Shoulder Roll
Roast, Cook in Liquid



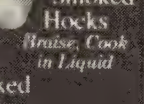
Boneless Arm Picnic Roast
Roast, Braise



Smoked Hocks
Braise, Cook in Liquid



Smoked Picnic
Roast, Cook in Liquid



Smoked Picnic
Roast, Cook in Liquid

SHOULDER



Sliced Bacon
Panfry, Broil,
Roast (Bake)



Sliced Bacon
Panfry, Broil,
Roast (Bake)

SIDE

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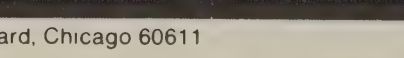


Chart courtesy National Live Stock and Meat Board, Chicago 60611

BREEDS OF HORSES:

Draft Type:	14-2 to 17-2 hands and over 1400 lbs. Belgian, Clydesdale, Percheron.
Light Type:	14-2 to 17-2 hands and 900 to 1400 lbs. Appaloosa, Arabian, Morgan, Palomino, Pinto, Quarter Horse, Standardbred, Thoroughbred.
Pony Type:	Less than 14-2 hands and 500 to 900 lbs. P.O.A., Shetland.

BRONCO: Any wild or untamed western horse, unbroken mustang.

CAYUSE: Indian pony named after the Cayuse Indians of Oregon.

COLIC: A digestive disturbance (infectious or otherwise) that causes pains in the abdomen.

COLORS: The genetics governing colors of horses are more complicated and variable than for other livestock. Major colors: Major, Bay, Black, Brown, Chestnut (Sorrel), and White. Variations are: Dun and Bucksin, Gray, Palomino, Piebald, Pinto, Calico, Paint, Roan, and Skewbald.

COLT: A young horse (male) foal, under 4 years of age.

DRESSAGE: The guiding of a horse through natural maneuvers without emphasis on the use of reins, hands, or feet.

EQUINE: Pertaining to Horses.

FARRIER: A horseshoer, one who cares for the hoofs and fits shoes for horses.

FILLY: A young female foal, up to maturity.

FLOATING: Filing off the sharp edges of a horse's teeth.

FOAL: A newborn horse (either sex), usually up to weaning age.

FOALING: Giving birth by a pregnant mare.

FURLONG: A running distance of one-eighth mile.

GAITS: Any forward movement of a horse, the rhythmic movement of the feet and legs, natural or acquired by training. The natural gaits are the walk, trot, and canter or gallop. Unnatural gaits are the pace, stepping pace, foxtrot, running walk, rack, and amble.

GEE: Teamsters' term signaling a right turn.

GELDING: A male horse that has been castrated before having reached sexual maturity.

HAND: A 4-inch unit of measurement of the height of horses at the withers (shoulders).

HAW: Teamsters' term signaling a left turn.

HINNY: The offspring of a male horse and a female donkey.

JACK: Male ass bred to mares to produce mules.

JENNET: Female ass bred to a stallion to produce a hinny.

LIPIZZAN: Austrian breed of horses, milk white in color at mature age, noted for performance in the dressage.

MARE: Mature female horse.

MULE: The hybrid cross of the mating of a Jack and a mare.

MUSTANG: Wild (native) horse of the Western plains, caught and broken for use as a stockhorse.

NEAR SIDE: The left side of a horse.

NEIGH: Loud prolonged call (cry) of a horse.

OFF SIDE: The right side of a horse.

PLEASURE HORSE: A light horse of any breed used for riding, driving, or nonprofessional racing and show.

PLUG: A horse of common breeding and poor conformation, also a Nag.

ROACHED: When the horse's mane has been cut short.

STABLE: A building used for the lodging and feeding of horses.

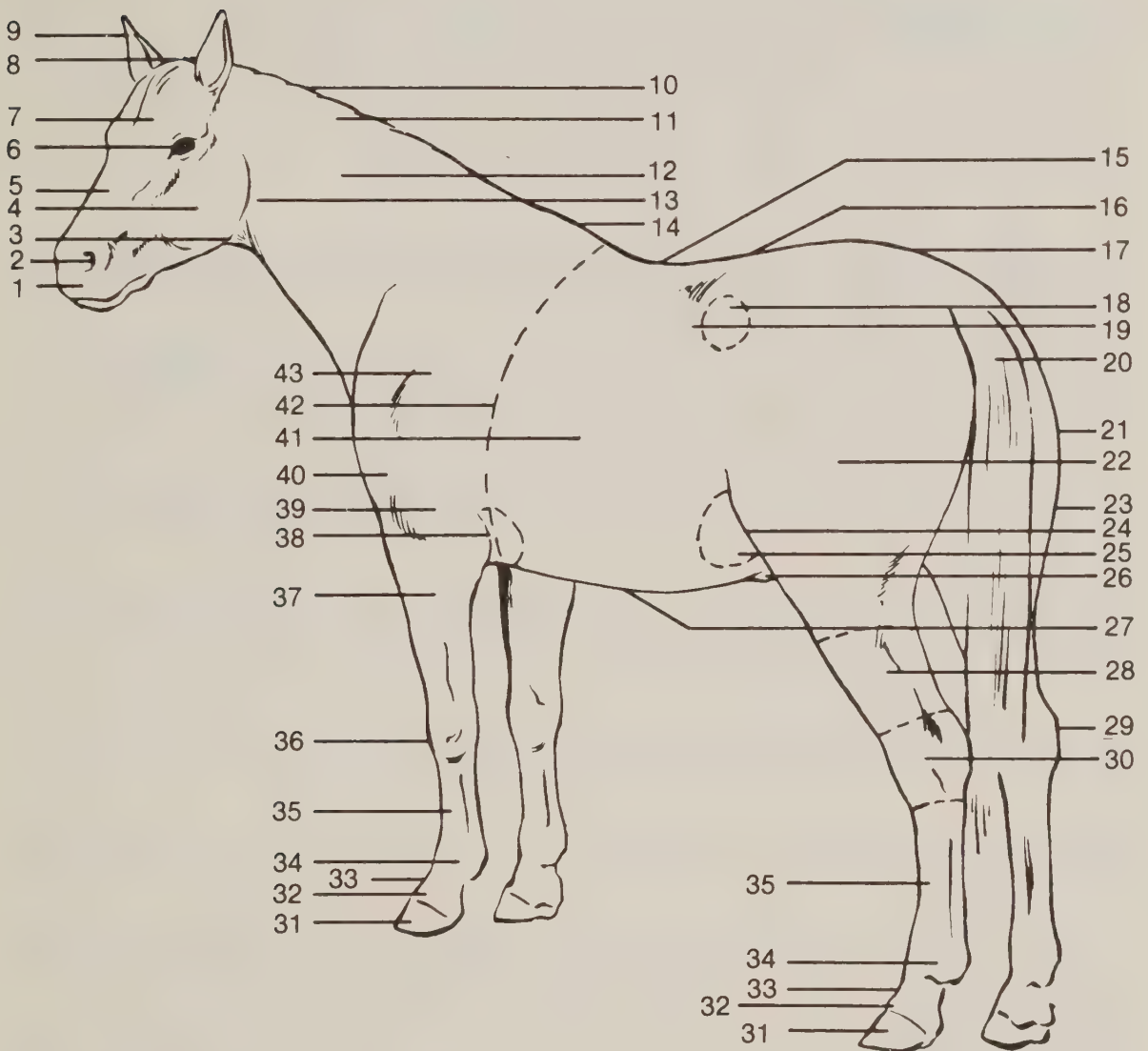
SOTCK HORSE: A light horse of any breed trained and used in handling livestock, mainly cattle.

STRIDE: The distance covered by one foot when in motion.

TACK: Equipment used in riding and driving horses.

TWITCH: Procedure to secure a horse for treatment, breeding, etc., involves tightly squeezing the skin on the end of a horse's nose by means of a small rope that is twisted.

WHINNY: The gentle, soft cry of a horse.



Parts of a horse

- | | | | |
|-------------|-----------------------|-------------------|-----------------------|
| 1. Muzzle | 13. Throatlatch | 24. Stifle | 36. Knee |
| 2. Nostril | 14. Wither | 25. Rear flank | 37. Forearm |
| 3. Jaw | 15. Back | 26. Sheath | 38. Point of elbow |
| 4. Cheek | 16. Loin | 27. Underline | 39. Arm |
| 5. Face | 17. Croup | 28. Gaskin | 40. Point of shoulder |
| 6. Eye | 18. Hip | 29. Point of hock | 41. Ribs |
| 7. Forehead | 19. Couplin | 30. Hock | 42. Heart girth |
| 8. Poll | 20. Tail | 31. Foot | 43. Shoulder |
| 9. Ear | 21. Point of buttocks | 32. Coronet | |
| 10. Mane | 22. Thigh | 33. Pastern | |
| 11. Crest | 23. Quarter | 34. Fetlock | |
| 12. Neck | | 35. Cannon | |

Poultry Division

AVIAN: Pertaining to poultry and/or fowl.

BARE-BACK: A chicken not fully feathered, especially on the back. It is the result of genetically poor feathering or feather picking by other birds.

BASIC BREEDER: A person or organization that produces the parent stock used for multiplication of poultry, either by crossbreeding, inbreeding, or other methods, also called primary breeder.

BROILER: A chicken of either sex about 7 weeks of age.

BROODER HOUSE: Heated quarters used for poultry until feathers are sufficiently developed to keep the birds warm.

BROODING: The raising of young chickens or turkeys during the first few weeks of life under special, controlled temperature conditions.

CANDLING: Examining egg for quality and defects by holding it before a bright light.

CAPON: Castrated male chicken: lack of male sex characteristics results in faster growth and larger mature size.

CASE OF EGGS: Thirty dozen container.

CHECKS: Eggs that have cracked shells.

CHICK SEXING: Determining the sex of day-old chicks by examining the anus.

COCCIDIOSIS: A protozoan affecting the small intestine of birds, causing bleeding and death.

COCCIDIOSTAT: A drug used in feed or water, effective against one or more species of coccidiosis.

COCKEREL: A young male chicken less than 1 year old.

CONTRACT GROWER: Growers of poultry, eggs, and meat who contract with an organization to raise the product for a set price.

CONTROLLED LIGHTING: Artificial lighting of poultry housing. Increasing or decreasing the number of hours of light during the day will control sexual maturity, fertility, and molt.

DEBEAKING: Removal of portion of beak to prevent cannibalism.

DIRTIES: Eggs with dirt adhering to the shell.

EARLY MATURITY: The condition when a pullet has started to lay at an early age.

EGG DEALER: An individual or firm that assembles, grades, packs, and wholesales eggs.

EGG GRADER: Machine used to sort eggs by weight and size.

EGG SIZE:

Market Size: Extra-large (26 oz. doz.), large (24 oz. doz.), medium (21 oz. doz.); small (18 oz. doz.).

EGG WASHER: Machines used to wash dirty eggs with hot water and a cleanser.

EVISCKERATION: Removal of the internal organs from the poultry carcass in the processing of poultry meat.

FEMALE LINE: A special strain or line of chickens selected for good egg production, hatchability, and meat characteristics.

FLASH CANDLING: Mechanized candling of eggs permitting one operator to candle up to 35 cases of eggs per hour.

FRYER: Chicken of either sex from 8 to 12 weeks old and weighing 3 to 4 pounds. The terms broiler and fryer are often used interchangeably.

GOBLER: Mature male turkey.

GRADE: Quality of poultry, eggs, or meat. Egg grades are listed as AA, A, and B. Poultry meat grades are A, B, C and No Grade.

HAUGH UNITS: A method of checking egg quality. The process compares egg weight to the height of the thick albumen measured on an egg broken onto a glass plate.

HEN: A mature female chicken/turkey.

INCUBATION: A process of holding eggs under controlled conditions of heat and moisture permitting the fertile eggs to hatch. Chicks require 21 days and turkeys 28 days to hatch.

INDIVIDUAL CAGE: Pens 8 to 12 inches wide and 18 inches long, arranged in rows, used to hold one laying hen.

LAYER: A female chicken producing eggs regularly. A good layer should produce between 19 and 20 dozen eggs in 12 months.

MALE LINE: A special strain of chickens selected for excellent meat characteristics. Males are mated to females of a female line to produce commercial fryer chicks.

MECHANICAL FEEDERS: Mash or grain feeders consisting of a long trough, moving belt, and driving unit. Feed from a hopper is placed on the belt and carried throughout the pens, filling the feed troughs.

MECHANICAL NESTS: Roll-away nests equipped with a moving belt that delivers the laid eggs to a central pickup point.

MOLTING: The shedding of feathers by chickens, accompanied by a reduction or ceasing of egg production, for a short period of time.

MULTIPLE HATCHER: Commercial hatcheries which mass-produce chicks from breeding stock produced by a basic breeder.

PAUSE: A period of nonproduction in egg laying strains, usually 15 days or more.

PERSISTENCY: The ability of a hen to lay for a substantial period late into the laying year.

POULT: A young turkey.

POULTRY: Domestic birds raised for eggs and meat.

PULLET: A female chicken less than 1 year old.

ROASTER: A young meat bird, 12 to 16 weeks old weighing 4 to 6 pounds, used for pan roasting.

ROLL-AWAY NESTS: Nest with sloping floors that allow the egg to roll away from the hen after it is laid.

ROOSTER: A mature male chicken.

SECURITY MANAGEMENT: A disease prevention program designed to prevent the mechanical spread of disease between and within farms.

SETTING HEN: A broody hen in the act (process) of incubating eggs.

SHELF LIFE: The length of time fresh dressed, iced, packed poultry can be held without freezing.

STANDARD OF PERFECTION: A book, published by the American Poultry Association, listing all the recognized breeds and varieties of poultry and their characteristics.

STRAIN CROSS: Mating two strains (different breeders) of the same breed and variety to get increased vigor in the progeny.

STRESS: Factors of discomfort, heat, cold, overcrowding, dirty pens, minor diseases, etc., that combine to reduce production, and affect well-being of an animal.

SYNTHETIC BIRD: A breed, developed by mating two or more breeds or varieties together, not recognized by the Standard of Pefection.

TOM: A male turkey.

TRAP NEST: A nest used to trap the hen when she enters in order to record eggs laid during the year.

VARIETY: A subdivision of a breed, distinguished either by color and pattern or comb.

General Soil and Crop Terms

ACRE: A parcel of land, containing 4,840 square yards or 43,560 square feet.

APIARY: Colonies of bees in hives and other beekeeping equipment for the production of honey.

ARID CLIMATE: A dry climate with an annual precipitation usually less than 10 inches. Not suitable for crop production without irrigation.

BACKCROSS: The cross of a hybrid to one of its parents.

CARBOHYDRATES: Any of a group of neutral compounds composed of carbon, hydrogen, and oxygen, including sugars, starches, and cellulose.

CAROTENE: A yellow pigment in leaves and other plant parts (the precursor of Vitamin A).

CHLOROPHYLL: The green coloring matter of plants which takes part in the process of photosynthesis.

CHLOROSIS: Deficiency of chlorophyll which causes leaves and other parts of the plant to appear more yellow than normal.

CHROMOSOME: A structural unit of the cell nucleus which carries genes, the units of heredity.

CROSS-FERTILIZATION: Fertilization accomplished by movement of pollen from one plant to another.

DOMINANT: A characteristic possessed by one of the parents of a hybrid which is manifested in the hybrid to the apparent exclusion of the contrasted character from the other (recessive) parent.

DOUBLE CROSS: A cross between two first generation hybrids.

EGG: The female reproductive cell.

ENSILAGE: Plant material stored in a silo for preservation; or silage (synonym), the preserved feed in a silo.

ENVIRONMENT: The sum total of the external factors affecting an organism.

FACTOR (GENETIC OR HEREDITARY): The gene or unit of heredity.

FERTILIZATION (PLANT): The union of the male (pollen) nucleus with the female (egg) cell.

FUNGICIDE: A chemical substance used as a spray, dust or disinfectant to kill fungi infesting plants or seeds.

GENE (APPLIES TO BOTH PLANTS AND ANIMALS): The unit of inheritance which is transmitted in the germ cells.

GENETICS: The science of heredity, variation, sex determination and related phenomena.

GERM CELL: A cell capable of reproduction or of sharing in reproduction.

GERMINATION: The beginning of growth from seed. A seed is considered germinated if the seedling is capable of continuing growth independent of the food originally stored in the seed.

GROWTH INHIBITOR: A chemical substance natural in plants or externally applied to retard growth of new plant tissue.

GROWTH STIMULANT: A chemical substance natural in plants or externally applied to hasten growth of new plant tissue.

HERBACEOUS: Referring to plants with soft stems that normally die back to the ground in the winter.

HERBICIDE: Any agent or chemical used in the destruction or control of weeds.

HETEROZYGOUS: A plant whose genetic constitution is mixed. The progeny of a heterozygous plant does not breed true.

HOMOZYGOUS: A plant whose genetic constitution is unmixed. Homozygous plants produce like progeny for the character under observation.

HYBRID: The offspring produced by inter-breeding of a male of one race with the female of another.

INBRED LINE: Relatively homozygous pure breeding strains developed by self-fertilization or controlled inbreeding and selection.

MILDEW: A fungus disease characterized by the appearance of a white, mycelial growth and spores on the surface of infected plant parts.

MOLD: A fungus with conspicuous spore masses.

NEMATODE: Soil worms of microscopic size. These organisms may attack the root or other structures of plants and cause extensive damage.

OUTCROSS: A crossbred to an individual or line not closely related.

PEAT: Slightly decomposed organic matter accumulated under conditions of excessive moisture.

PEST: Any organism injuring plants or plant products.

PHOTOSYNTHESIS: A complex physiological process of plant life in which an organic substance (sugar) is made from the carbon dioxide of the air combined with water. This process utilizes energy of light through the agency of chlorophyll.

POLLEN: The male germ cells.

POLLINATION: The transfer of pollen from the anther to the stigma.

SINGLE CROSS: A hybrid between two inbred lines.

SLIP: A cutting, shoot, or leaf to be rooted for vegetative propagation.

SPECIES: One kind of plant.

STRAIN: A group of plants derived from a variety.

TRANSPIRATION: The loss of water vapor from the leaves and stems of living plants to the atmosphere.

VARIETY: A group of individuals within a species that differs from the rest of the species.

WINDBREAK: A strip of trees or shrubs serving to reduce the force of wind; any protective shelter from the wind.

Soils

ACID SOIL: A soil with an acid reaction, a pH less than 7.0.

ALKALI SOIL: A soil with an alkali reaction, a pH more than 7.0.

AMMONIFICATION: The formation of ammonia or ammonia compounds in the soil.

EROSION: The wearing away of the land surface, usually by running water or wind.

FRIABLE SOIL: Soil which crumbles easily.

FURROW: A trench made in the earth by a plow or cultivator.

GALLED SPOTS: Areas in fields made practically sterile by erosion or removal of top soils.

GUMBO SOIL: A sticky fine-textured soil, difficult to work when wet: usually high in clay content.

HARDPAN: A hardened or cemented soil horizon or layer. The soil material may be sandy or clay-like and may be cemented by iron oxide, silica, calcium carbonate, or other substances.

HUMUS: The well decomposed, relatively stable portion of the organic matter in a soil.

LAND CLASSIFICATION: The classification of units of land for the purpose of grouping soil of similar characteristics, in some cases showing their relative suitability for some specific use.

LEACHING: The process of removal of soluble materials by the passage of water through soil.

LIGHT SOIL: A soil easy to cultivate. Usually contains a predominance of sand or silt particles.

MARGINAL LAND: Land almost too unproductive to be farmed profitably.

pH: A scale of measurement by which the acidity or alkalinity of soil or water is rated. A pH of 6 to 7.5 is considered “ideal” for most agricultural crops. Each plant (specie-type), however, has its own “ideal” pH range.

1 2 3 4 5 6
Acid Range

7
Neutral

8 9 10 11 12 13
Alkali Range

PLOW PAN: A compacted layer at a depth usually six to eight inches below the surface; caused by compression at the bottom of a plow or other tillage implements.

PRODUCTIVE SOIL: A soil in which the chemical, physical, and biological conditions are favorable for the economic production of the crops suited to a particular area.

SALINE-ALKALI SOIL: A soil having a combination of a harmful quantity of salts and either a high degree of alkalinity or a high amount of exchangeable sodium, or both, so distributed in the soil profile that the growth of most crop plants is less than normal.

SALINE SOIL: A soil containing enough soluble salts to impair its productivity for plants but not containing an excess of exchangeable sodium.

SHEET EROSION: The gradual, uniform removal by water of the earth's surface, without the formation of hills or gullies.

SOIL AUGER: A tool for boring into the soil and withdrawing a small sample for field or laboratory observations. Augers are of two general types—those shaped like twisted metal straps which hold soil between the twists into which the soil is scraped by cutting front edges, and those with a hollow cylinder.

SOIL HORIZON: A layer of soil material approximately parallel to the land surface which differs from adjacent genetically related layers in color, structure, texture, or consistence. It also differs in biological and chemical characteristics.

SOIL MAP: A map designed to show the distribution of soil types or other soil-mapping units in relation to the prominent physical and cultural features of the earth's surface.

SOIL-MOSITURE TENSIOMETER: An instrument which measures the tension with which water is held by soil. The instrument can be used for estimating when to irrigate land and for detecting drainage problems.

SOIL REACTION: The degree of acidity or alkalinity of a soil usually expressed in terms of pH value.

SOIL SERIES: A grouping of soils which have developed from a particular kind of parent material and which are similar in all characteristics except texture of the surface layer. The soil series is one of the principal units of soil classification.

SOIL STRUCTURE: Refers to bonding together of soil particles and the resulting configuration of solid and voids.

SOIL SURVEY: The systematic examination, description, classification, and mapping of soils in an area.

SOIL TEXTURE: Refers to the coarseness or fineness of a soil. It is determined by the relative proportion of various sized particles (sand, silt, and clay) in a soil.

SOIL TYPE: A finer subdivision of a soil series. It includes all soils of a series which are similar in all characteristics, including texture of the surface layer.

SUBSOILING: Breaking of compact subsoils without inverting them. This is done with a special narrow cultivator shovel or chisel, which is pulled through the soil at a depth from 12 to 24 inches and at spacings from 2 to 5 feet.

TOPSOIL: The layer of soil used for cultivation, which usually contains more organic matter than underlying materials.

Irrigation

ACRE FOOT: A unit of volume of water equal to the volume of a prism 1 foot high with a base one acre in area: 43,560 cubic feet.

CAPILLARY WATER: The water retained in the fine pores in soil by surface tension that moves as a result of capillary forces.

DRAINAGE: The removal of excess surface water or excess water from within the soil by means of surface or sub-surface drains.

DRAINAGE TILE: Clay, concrete or elastic pipe installed for internal drainage purposes.

DRAW DOWN: The difference, measured in feet, between the static head as standing water level and the head during pumping or pumping water level. If depth of standing ground water is 175 feet and depth of water when pumping is 145 feet, then the draw down is 30 feet.

FIELD CAPACITY: The moisture content of soil in the field as measured two or three days after a thorough wetting of a well-drained soil by rain or irrigation water.

GRAVEL TREATMENT OF WELLS (GRAVEL PACKING): The practice of placing coarse gravel around the outside of the intake section (screen) or a well casing steel pipe. An "oversize" hole is drilled, the casing inserted, and gravel is added to fill the void. Such treatment is designed to permit use of larger openings of the well at the intake zone and thus increases the water yield of a well.

GRAVITATIONAL WATER: Water that either runs off or percolates through a soil. Not available for use by plants.

GROUND WATER: Water that fills all the unblocked pores of underlying material below the water table, which is the upper limit of saturation.

HYGROSCOPIC WATER: Moisture that is so closely held by the soil particles that it is unavailable to plants.

IRRIGATION METHODS:

Check (also, Border-Strip or Basin):	Water applied rapidly to relatively level plots surrounded by levees. The basin is a small check.
Corrugation:	Water applied to small closely placed furrows, frequently in grain and forage crops, to continue the flow of irrigation water in one direction.
Flood:	Water released from field ditches and allowed to flood over the land.
Furrow:	Water applied in small ditches made by cultivation implements for tree and row crops.
Sprinkler:	Water sprayed over the soil surface and crop through nozzles from a pressure system.
Drip:	Water applied at very low pressure, from an emitter in a plastic line for tree and row crops.

PERCOLATION (SOIL WATER): A qualitative term applying to the downward movement of water through soil under the influence of gravity.

PERMANENT WILTING POINT: That point at which a plant is dried so badly that even though put into a humid atmosphere and watered, it will no longer recover.

SATURATE: To fill all of the openings among soil particles with liquid.

TENSIOMETER: A measuring device to determine the amount of soil moisture used in irrigation management, as to how much and when to irrigate.

WATER RIGHTS (RIPARIAN RIGHTS): The rights of a person owning land containing or bordering on a water course or other body of water in or to its banks, bed, or waters.

WATER TABLE: The upper limit of the part of the soil or underlying rock material that is wholly saturated with water. In some places an upper or perched water table may be separated from a lower one by a dry zone.

Fertilizer

AVAILABLE NUTRIENTS IN THE SOIL: The part (%) of the supply of the required plant nutrients that can be taken up by the plant at rates and amounts required for optimum plant growth.

COMPLETE FERTILIZER: A fertilizer containing the three macronutrients (Nitrogen, Phosphorous, and Potassium) in sufficient amounts to sustain plant growth.

COMPOST: Organic residues, or a mixture of organic residues and soil which have been piled, moistened, and allowed to undergo biological decomposition. Mineral fertilizers are sometimes added.

DENITRIFICATION: Refers to chemical reduction of oxygen containing nitrogen compounds in soil under conditions of restricted oxygen supply. Usually results in the escape of nitrogen into the air and hence is undesirable in agriculture. It commonly is a consequence of poor drainage conditions in a soil.

FERTILIZER: Any organic or inorganic material of natural or synthetic origin which is added to soil to provide one or more plant nutrients.

FERTILIZER MATERIAL OR CARRIER: Any substance which contains one or more plant nutrients.

FERTILIZER TERMS:

Analysis:	Designates the actual chemical composition of the product as determined by laboratory analysis.
Formula:	The quantity and grade of crude stock materials used in making a fertilizer mixture.
Grade:	An expression that indicates the percent of plant nutrients in a fertilizer. Thus a "10-20-10" contains 10% nitrogen (N), 20% phosphoric acid (P_2O_5), and 10% potash (K_2O).
Unit of Plant Nutrient:	Twenty pounds or 1 percent of a ton.

GREEN MANURE: Any crop or plant grown and plowed under to improve the soil, by addition of organic matter and the subsequent release of plant nutrients, especially nitrogen.

MANURE: Generally, the refuse from stables and barnyards including both animal excreta and straw or other litter.

NITROGEN CYCLE: The sequence of transformations undergone by nitrogen in its movement from the free atmosphere into and through soils, into the plants, and eventually back. These biochemical reactions are largely involved in the growth and metabolism of plants and microorganisms.

ORGANIC FERTILIZER: Any fertilizer material containing plant nutrients in combination with carbon.

RHIZOBIUM: Bacteria living in nodules on the roots of leguminous plants that are capable of removing nitrogen from the air and soil “fixing” it into forms that plants utilize for growth.

TOP DRESSING: Lime, fertilizer, or manure applied after the seedbed is ready, or after the plants are up.

Chapter XII

Plants

AGRONOMY: The science of crop production and soil management.

ALFALFA: A valuable leguminous crop for forage or hay used in livestock feeding.

ANGIOSPERM: A ‘‘higher’’ seed plant.

ANNUAL: A plant that completes its life cycle from seed to plant, flower, and new seed in 1 year or less.

AQUATIC PLANT: A plant that lives in water.

ASEXUAL REPRODUCTION: Reproductive process that does not involve the germ or sexual cells.

AUXINS: Organic substances that cause stems to elongate, leaves and fruit to fall, or cuttings to grow roots.

BACTERIAL RING ROT: A highly contagious and infectious seed potato disease which can destroy an entire crop.

BED: 1) A narrow flat-topped ridge on which crops are grown, bordered by a furrow on each side for irrigation or drainage of excess water.
2) An area in which seedlings or sprouts are grown before transplanting.

BIENNIAL: Of 2 years’ duration. A plant germinating one season and producing seed the next.

BLIGHT: A disease causing plants or tree parts to turn black and die, as the fire blight of pears.

BOLL: The pod in which cotton grows; the fruit of the cotton plant.

BOLT: The formation of an elongated stem or seedstock at maturity, as in sugar beets.

BUD: An unexpanded flower or a rudimentary leaf, stem, or branch.

BUDDING: The process of inserting a single bud of a specified variety in the stem of another plant so that a permanent union is effected.

Types of Budding: Ring, terminal, plate, H, patch, flute, prong, chip, shield, or T.

CAMBIUM: The growing layer of a dicotyledonous stem.

CASH CROP: Any crop that is sold off the farm to yield ready cash.

CATCH CROP: A crop seeded with one of the regular crops in a rotation or between the growing periods of two regular crops. This is done to obtain more production use of the soil and to increase its potential income.

CEREAL GRAIN: A grass cultivated for its edible seeds or grains (e.g., barley, wheat, oats, rice and corn) used for livestock feeds and human foods.

CERTIFIED SEED: Seed grown from pure stock which meets the standards of certifying agency (usually a state government agency). Certification is based on germination, freedom from weeds and disease, and trueness to variety.

CLONE: Group of organisms propagated vegetatively from a single original individual.

CONTOUR FURROWS: Furrows plowed at right angles to the slope, at the same level or grade, to intercept and retain runoff water.

COTYLEDONS: The first leaves of a plant as found in the embryo; major portion of the two halves of a legume seed.

COVER CROP: A crop used to cover the soil surface. It decreases erosion and leaching, shades the ground, and offers protection to the ground from excessive freezing and heaving. The cover crop adds plant residue and, in some cases, nitrogen to the soil.

CROP ROTATION: More or less regular recurrent succession of different crops on the same land for the purpose of maintaining good yields.

CROWN: The base of the stem where roots arise.

CUTTING: A part of a plant to be rooted for vegetation propagation (asexual).

DAMPING OFF: Seed decay in the soil or the decay of the bases of seedlings.

DEFOLIATE: To strip off leaves to facilitate harvesting, often accomplished by spraying plants with a chemical.

DORMANCY: An internal condition of a seed or bud that prevents its prompt germination or sprouting under normal growth conditions.

DOUBLE CROP: Two different crops grown on the same area in one growing season.

DRY LAND FARMING: The practice of crop production without irrigation.

EMBRYO: The rudimentary plant with a seed.

FERTILIZATION: The union of pollen with an egg to form an embryo.

FIBER CROP: Any crop grown to produce fibers that can be woven into cloth, rope, or twine, such as cotton, hemp, or flax.

FORAGE: Vegetable matter, fresh or preserved, which is gathered and fed to animals as roughage (e.g., alfalfa hay, corn silage, or other hay crops).

HYDROPONICS: Growing of plants in water containing the essential growth elements. This process is being used in "glass" houses for intensive "off-season" production of vegetables.

IMPERFECT FLOWER: One lacking either the stamen or pistil.

INFLORESCENCE: The flowering part of a plant.

LADINO CLOVER: A species of white clover grown widely in the United States as a pasture crop.

LEGUMES: A type of plant which has nodules formed by bacteria on its roots. The bacteria that compose these nodules take nitrogen from the air and pass it on into the plant for the plant to use. Some legumes are alfalfa, soybeans, sweet clover and peanuts.

LINT: Cotton, after the seeds have been ginned out.

LODGING: The tendency of cereal plants to break and fall to the ground during wet weather; tendency of plants which are normally erect to lean or break over.

MONOCOTYLEDON: Type of plant having only one cotyledon or seed leaf as in grasses.

PASTURE:: An area of land covered with grass or other herbaceous forage plants kept for grazing animals.

Native Pasture: A pasture covered with native plants.

Natural Pasture: Any land undisturbed by man, which is covered with natural grasses.

Permanent Pasture: A pasture of perennial or self-seeding annual plants kept for grazing indefinitely.

Range: Land with poor precipitation and topographic features making it unsuitable for cultivated and irrigated crops.

Rotation Pasture: A pasture used for a few seasons and then plowed for other crops.

Temporary Pasture: A pasture grazed during a short period only, not more than one crop season.

PERENNIAL: Living more than 2 years, but able to produce seed the first year.

PERFECT FLOWER: One containing both the stamen and pistil.

POLLINATION: The transfer of pollen (germ cells) from anthers to the stigma.

POTATO EYE: A cluster of buds on a potato from which stems or roots arise.

RHIZOME: A subterranean stem, usually rooting at the nodes and rising at the apex; a rootstock.

ROGUE: Variation from the type of a variety, usually inferior.

SCARIFIED SEED: Hard seed that has been treated so that it germinates more quickly—as sweet clover.

SOILING CROPS: Crops that are grown and harvested and fed in a fresh condition to livestock, also called “Green Chop.”

SQUARE: An unopened flower bud of cotton.

STAND: Row of seedlings or plants; when all spaces are filled, it is a good stand—many skips or open spaces between plants constitute a poor stand.

STAPLE: Term used to designate length of cotton fiber, wool, or flax.

STOLEN: A creeping stem, above ground, capable of producing roots and stems at the nodes.

STRIP CROPPING: Growing crops in long narrow strips across a slope approximately on a line of contour, alternating dense-growing intertilled crops. This is sometimes done with crops grown under government acreage allotments in order to increase yields per acre, since the intertilled area is not included in the allotment. It is also done in some dryland areas to conserve moisture and reduce the hazards of wind erosion.

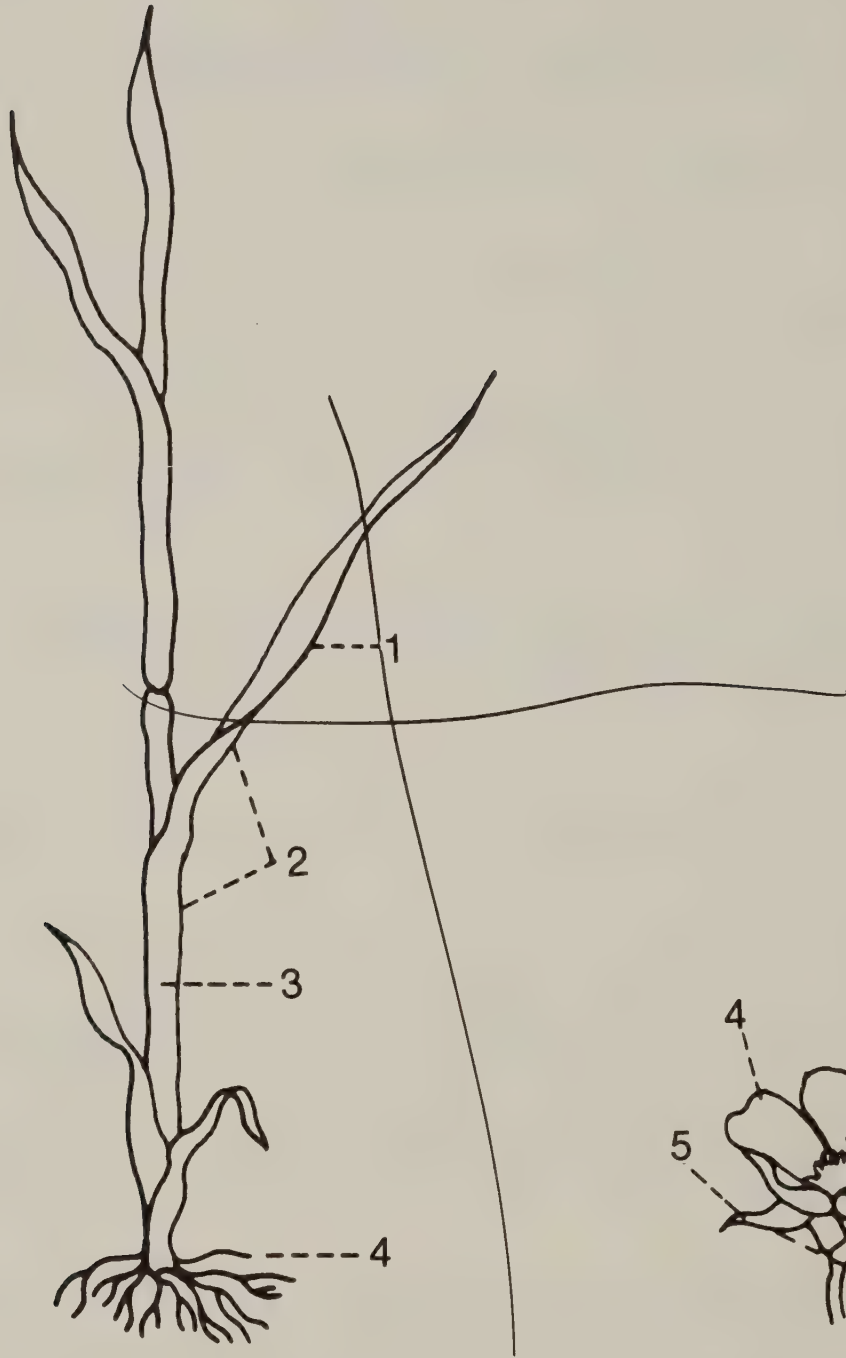
STUBBLE: The basal portion of the stems of plants left standing after cutting.

STUBBLE MULCH: The stubble of crops or crop residues left essentially in place on the land as a surface cover before and during the preparation of the seed bed, and at least partly, during the growing of a succeeding crop.

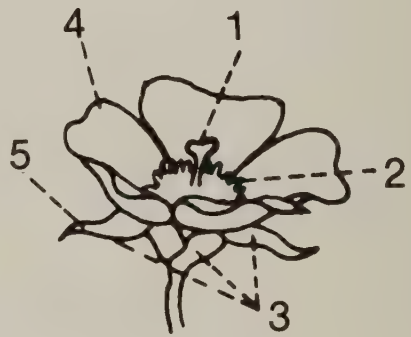
SUMMER FALLOW: Land plowed up (usually in spring) and left unseeded through the summer. This is done to let the land air out and rest until fall, when it is worked up and planted to a crop of grain. May also be done to break down organic matter or kill weeds.

TUBER: A short, thickened branch bearing minute scale leaves with buds or “eyes” in their axils, as potatoes.

WINDROW: Hay or forage raked up in rows to cure.



Vegetative part of a grass plant; part of leaf opened out. 1, Blade; 2, Leaf; 3, Sheath; 4, Roots.



Typical complete flower. 1, Pistils; 2, Stamens; 3, Calyx; 4, Petal; 5, Sepal.

Trees and Vines

BUD UNION: The joint or elbow where the variety was budded.

BUDWOOD: Current season's growth, with well-developed axillary buds, selected for budding vines or trees.

CAMBIUM: The growing layer of the stem. It is necessary to match cambium of root stock and scion for successful budding and grafting.

CROWN: The base of the tree trunk at or below the ground level where the roots develop.

CROWN GALL: A disease which causes a rough gall or swelling at the crown of the tree that sometimes encircles and kills it.

CURRENT SEASON'S GROWTH: All the shoot and spur wood which grows during the spring and summer.

DECIDUOUS TREES: Trees that lose their leaves at the end of the growing season (e.g., walnuts, apricots, peaches).

DIE-BACK: Progressive death of twigs or leaves beginning at tips.

DORMANT: The period between leaf fall and spring when there is no growth in deciduous trees or vines.

GIRDLING: The act of encircling the stem of a living tree or vine with a cut or cuts that completely sever the bark. May be a single cut or parallel cuts ($\frac{1}{8}$ to $\frac{1}{4}$ inch wide) with the bark left in place or removed. The purpose of girdling trees or vines is to increase the size of fruit.

GRAFT UNION: The joining or junction where the top was grafted to the rootstock. This is commonly and easily seen where the English and Black walnuts are grafted as the English wood is very light color.

GRAFTING: The process of inserting a scion of a specified variety into a stem, root, or branch of another plant so that a permanent union is effected.

Types of Grafts: Cleft, side, crown, veneer, notch.

GUMMING: The yellow to brown gum which oozes and hardens on the trunk, branches, or fruit. May be a sign of insect and/or disease damage or simply the nature of the tree.

HANGER: The long, hanging branches, most commonly found on a peach or nectarine, on which the fruit wood is borne.

HEDGEROW: Trees grown closely together so that branches intertwine to form a continuous row.

LITTLE LEAF: A fairly common zinc deficiency disease that causes dwarfing of the shoots and leaves, the leaves are generally a pale-yellow green.

MILDEW: A grayish white fungus disease found on the leaves, shoots, and fruits, commonly on peaches and grapes.

MOTHER VINE: A vine grown primarily for the production of propagating material (e.g., cuttings, budwood, scionwood).

MUMMIES: The dried and shriveled fruit left hanging on the trees or on the ground. They are often serious sources of disease. (Brown rot of stone fruit)

NON-CULTIVATION: The farming practice used particularly in orchards in which weed control is effected through mowing, or spraying with herbicides.

PEACH LEAF CURL: A fungus disease which causes the leaves of peach or nectarine trees to grow distorted and discolored and finally fall off in the spring.

PHYLLOXERA: An insect which attacks the roots of grapevines.

POMOLOGY: The science or study of growing fruit.

PRIMARY SCAFFOLDS: The main support branches which are developed directly out of the tree trunk.

PRUNING: Any removal or cutting out of wood from the tree or vine.

RED SPIDER: A tiny eight-legged mite that sucks fluid from the leaves or shoots and can cause serious damage.

ROOTSTOCK: The plant whose roots are utilized for the growing of a preferred variety.

SCAFFOLD: A main branch from the tree trunk.

SCION: Any plant part, usually of a stem, inserted in a stock for propagation. It may consist of one bud with little or no wood, as in budding, or of one or more buds with one or more inter-nodes, as in grafting.

SECONDARY SCAFFOLDS: The main branches which are developed out of the primary scaffolds.

SEEDLING: A tree grown from seed: often used as rootstocks.

SET: The amount of blossoms or fruit held on the trees.

SHOT HOLE: A fungus disease causing the “shot” holes in the leaves of almonds and damaging the buds and shoots.

SKIRT: Low hanging branches. The term usually is used in referring to citrus trees.

SPUR: The short, stubby growth on which the fruit is borne, as in almonds and cherries.

SUCKER: The short growth which arises from the root or crown of the tree.

TERMINAL: Referring to the extremity or upper bud, flower, or leaf.

TWIG BORDER: A small caterpillar which enters the tender shoot tip as it starts growing, causing the leaves to die and the tip to die back. Sometimes found in the fruit.

VITICULTURE: The science and practice of vine growing: grape growing.

Machinery

AUGER: Spiral device on a shaft used to move grain through a tube.

BACK HOE: A shovel mounted on the rear of a tractor, hydraulically operated to dig trenches or pits in soil.

BALE STACKER: Self-propelled flat-bed vehicle that moves through the field picking up baled hay, automatically stacking on the bed, then cruising to the stack location where the load of bales is unloaded as a unit in the stack.

BALER: A machine designed to compress hay into compact bundles or bales, usually tied with twine or wire.

BANK OUT WAGON: Self-propelled bulk wagon used to haul rice and other crops (corn, wheat, barley) from the combine out of the field to trucks for highway travel.

BROADCASTING: Random scattering of seeds over the surface of the ground. If the seed is to be covered, this is done as a separate operation, usually with a spike-tooth harrow.

BULLDOZER: A tractor, usually crawler-type, equipped with a heavy steel blade at the front end for scraping and moving dirt, brush, trash, etc.

CAT SKINNER: An experienced tractor operator (usually for crawler-type tractors).

CATCHING FRAME: Plastic or rubber covered metal frames that are self-propelled: unfolds hydraulically around the base of the tree to catch fruit or nuts that are shaken off.

CHISEL PLOW: A tool carrier, with one or more heavy standards (shanks) with metal points, pulled behind a tractor for primary tillage and used to break up hardpan (poor soil condition).

CHOPPER:

- A. Rotary—Horizontal rotating blade (covered) to cut forage, weeds, brush, limbs, etc., into fine material.
- B. Flail—Rotating “barrel” of individual knives that swing out with centrifugal force to cut forage, etc., into fine material.

COMBINE: A self-propelled machine for harvesting grain and other seed crops. In one operation, it cuts, threshes, separates and cleans the grain and scatters the straw.

DIGGER: Equipment designed especially for harvesting root crops such as sugar beets, potatoes or carrots.

DISK HARROW: A tillage tool consisting of two or more gangs (groups) of concave disk blades set at an angle to the direction of travel. Half of the gangs throw the soil to the left, and the other half to the right. Formerly called “Randles.”

DISK PLOW: A tool with a series of concave disk blades all throwing the soil in the same direction (in contrast with a disk harrow, which moves soil in both directions). On a standard disk plow, the blades are individually mounted.

DRAWBAR HORSEPOWER: The amount of power developed by a tractor at the drawbar (hitch point), approximately 80% of engine H.P.

DRILLING: The process of opening the soil to receive the seed, planting the seed, and covering it in a single operation.

END-GATE SEEDER (BROADCAST SEEDER): A small machine which is fastened on the end-gate of a wagon or the rear of a truck to broadcast seed. Rotating the disks spread the seed by centrifugal action.

FLOAT: A device pulled behind a tractor to level or smooth soil.

FORK LIFT: Self-propelled unit with two heavy forks that are hydraulically operated to lift heavy loads, particularly bulk bins. Squeeze-type being used to lift “units” of baled hay onto and off trucks.

FRENCH PLOW: A plow designed with a small offset share used for in-row cultivation and care of vineyards.

FRESNO (FRESNO SCRAPER): A drag-type scraper used to move dirt. The bucket has a bottom and is rotated forward for dumping or spreading.

GIN: A machine for separating cotton fibers from the seeds. The term also refers to the plant where cotton is processed.

GRAHAM PLOW: An implement with a series of shanks and wide sweeps. Used to cut weed-plant growth under the ground with a minimum of surface disturbance. Used in summer-fallow to conserve ground moisture.

HARROW (SPIKE TOOTH): An implement with straight spike-like teeth (not necessarily vertical) that is used for smoothing tilled soil, breaking clods, covering broadcast seeds, and other shallow tillage operations.

HARROW (SPRING TOOTH): An implement with curved teeth fixed in rows, used to break clods, crust of soil and clumps of plants.

HAY CONDITIONER: A device to crimp or crush the cut stem of hay to allow faster drying. It may be an attachment to the mower or a separate piece of equipment.

HEADER: The part of a harvesting machine that cuts the stalks and conveys them to the threshing mechanism of a combine or deposits the material in a window.

HYDRAULICS:

- a. Cylinder or Ram—Unit that extends under hydraulic pressure; develops large force possibilities.
- b. Orbit Motor—Converts hydraulic energy into rotating energy to run conveyors and belts.
- c. Pump—Provides flow and pressure in the hydraulic system.
- d. Quick Coupler—Attaches and disconnects hydraulic hoses.
- e. Three-Point Hitch—Hydraulic arms and top link on the rear of a tractor, used to pick up integrally mounted implements on the tractor.

LAND PLANE: A land preparation implement used in minor “touch-up” land leveling operations after land has been leveled by heavy equipment. The land plane is most widely used in normal farming operations to touch up a field every 2 or 3 years following intensive cropping.

LISTER: Also known as a “Middlebreaker.” A right and left hand moldboard plow combination for furrowing and making beds.

MODULAR: A machine (hydraulic press) to compress seed cotton into a compact block (module) to be stored at “roadside” of field prior to being moved to the gin.

PELLET MACHINE: A machine used for compressing alfalfa hay into a compact high-density pellet.

PERFORATED CASING: Ordinary well casing may have holes cut into it or (preferably) specially designed and constructed intake screen sections may be attached to the well casing and placed at the desired zone of water intake.

PICKER, CORN: A self-propelled machine for harvesting ear-corn by stripping the ears from the corn plant.

PICKER, COTTON: A self-propelled machine for harvesting seed cotton.

POWER TAKE-OFF: A shaft on a tractor that transmits power to an implement, usually through a connecting shaft that has two or more universal joints and a telescoping reaction. PTO shaft speeds are standardized at either 540 or 1,000 rpm.

PUMP BOWL (PUMP CASE): The casing or container for the impeller mechanism of a pump. May also be called the “Pump Stage.”

ROTARY TILLER: A power-driven implement used for broadcast or strip tillage. It is equipped with curved knives that slice through the soil, chop surface residue, and mix all materials in the disturbed layer.

SELF-PROPELLED: A term used to describe an implement in which the propelling power unit is an integral part of the machine.

SET OF DOUBLES: Set of two trailers, pulled by a truck-tractor, used for hauling farm crops, may be left (unhooked) in the field while the truck pulls another set.

SHAKER: A boom device mounted on a tractor, or self-propelled, used to vigorously shake trees by eccentric action to remove fruit or nuts.

SHOVELS AND SWEEPS: Cultivating equipment, usually mounted on a tool bar.

SPEED SPRAYER: A pulled tank, mounted on wheels with an axial fan at the rear, blows the spray through outlets around the circumference of the tank. Used to spray orchards and vineyards.

SUBMERSIBLE PUMP: An electric motor and pump combined and hermetically sealed so they will operate at the end of a pump shaft in a water well.

SUBSOILER: A deep tillage implement with shanks from 20 to 30 inches in length extending into the ground used to break up compacted subsoil. Chiseling is sometimes confused with subsoiling. Chiseling is a tillage operation similar to subsoiling but usually confined to the top 6 to 10 inches of soil.

SWATHER: Haying equipment designed to cut (mow), condition, and windrow hay in a single operation.

SWEEPER: Implement with a rotary broom-brush to windrow nuts.

THINNER: Mechanical device mounted on a three-point hydraulic hitch, used to thin plants in rows. Some units operate electronically.

TOOL BAR: Bar mounted on wheels or a tractor, used to carry various tools for tillage of the soil and/or crops.

TRACTOR: Heavy duty vehicle, low geared, used to carry, push, and/or pull implements for tillage, planting, and harvesting crops.

a. Wheel-type, rubber tired.

b. Crawler-type, uses tracks for propulsion, also called tracklayer, cat, etc.

TURBINE PUMP (DEEP WELL): One or more rotating impellers built on a vertical shaft within a compact bowl. The entire unit (stage) is submerged in water. As the impellers spin, a partial vacuum is created, and water is pushed in by atmospheric pressure. Centrifugal force guides the water to the next stage, water rises in the well casing until it is discharged under pressure.

WELL CASING: The pipe placed in the well hole to transmit water from the intake zone to the surface.

WHEEL RAKE: A hay rake made up of a series of spiked wheels which gather mowed hay and deliver to the windrow at the side of the rake. Originally called a "Morril Rake."

Miscellaneous

ACREAGE ALLOTMENTS: A specified number of acres that a farmer may legally plant within a crop year. The term arises from the Federal Government's program of acreage restrictions of selected crops.

AGRICULTURAL COMMISSIONER: An agricultural employee responsible for the enforcement of the State Agriculture Code supported by the public and responsible to the public, both producer and consumer.

AGRICULTURE: The utilization of biological processes on farms to produce food and other products useful and necessary to man. Both a "way of life" and a "means of life" for the people involved in this industry.

AGRICULTURE EXTENSION SERVICE: Cooperative (Federal, State, and County) agency doing research and education for rural and urban producer and consumer groups, located in each county with specialist personnel for each particular area.

A.S.C.: Agricultural Stabilization Committee; Local county agency of farmers who act on federally funded cost-sharing USDA programs such as acreage allotments and marketing orders.

BUSHEL: A unit of dry measure (1 cubic foot) for grain, fruit, etc., equivalent to 8 gallons of liquid. Weight varies with the density/bulk of the commodity. Example: Oats weigh 32 lbs. per bu.; barley, 46 lbs. per bu.; and corn, 56 lbs. per bu.

CONTRACT FARMING: The growing and marketing of farm products under such circumstances that selective terms of the market-quantity, grade, size, inspection, timing, or pricing are specified to both the grower and the processor or shipper before production is undertaken. Contract farming is one method of vertical integration.

COOPERATIVE: An organization formed for the purpose of production and marketing of goods or products owned collectively by members who share in the benefits. Most common examples in agriculture are canneries and creameries.

CWT: Hundredweight or 100 pounds.

FARM CREDIT SYSTEM: The Agricultural Credit Act of 1987 has mandated merger of district Federal Land Banks (long-term loans to purchase agricultural land and buildings) and Federal Intermediate Credit Banks (short-term loans for production supplies). They are being replaced by new district Farm Credit Banks. Mergers among and between Federal Land Bank Associations and Production Credit Associations also are taking place. Similarly, a number of the district Banks for Cooperatives (loans to agricultural cooperatives) and the Central Bank for

Cooperatives (loans to cooperatives above the credit-lending capacity of the district banks) are voluntarily merging. For more current information on the Farm Credit System, contact: Farm Credit Administration, 1501 Farm Credit Drive, McLean, VA 22102.

Commodity Credit Corporation (CCC) is not a part of the Farm Credit Administration but is administered within the United States Department of Agriculture. Its primary purpose is to make nonrecourse loans on price-supported commodities.

Farm Credit Administration—[A division within the United States Department of Agriculture] that administers the government and pseudo-government credit agencies serving agriculture.

Farmers Home Administration—A USDA agency which finances farming operations which do not qualify for loans within the normal credit channels. FmHA also handles the “emergency and disaster” loan programs of the United States Department of Agriculture.

Federal Intermediate Credit Banks—A group of 12 banks which make discount loans to production credit associations and to other credit associations, both cooperative and otherwise. They obtain funds by selling debentures on the open market.

Federal Land Banks—A group of 12 banks located throughout the United States which provides long-term mortgage loans to farmers. The loans are made through the Federal Land Bank Association which operates within the district served by the regional land bank. The associations are corporations organized by borrowers. One of the requirements for borrowing is that the borrower purchase stock in the association equal to 5 percent of the loan.

Production Credit Associations—Individual corporations chartered under the Farm Credit Act of 1933 which make loans to farmer members. Each borrower is required to purchase stock equivalent to 5 percent of the loan. PCA's discount their farm paper with the Federal Intermediate Credit Bank serving their district.

FDA: Food and Drug Administration. A Federal agency that sets and enforces standards and regulations in the production processing, distribution, and marketing of food.

FFA: Future Farmers of America—an organization for high school students studying vocational agriculture.

4-H: Club for boys and girls sponsored by the Agricultural Extension Service to foster better agriculture and homemaking. The 4-H's stand for Head, Heart, Hands, and Health. Members are 9 to 19 years of age.

HORIZONTAL INTEGRATION: The combining of two or more similar functions under one decisionmaking body. A farmer who acquires and manages another farm as a separate unit and a canner that builds or acquires a cannery in another area are examples of horizontal integration.

INTEGRATION: Control by a single organization of all or some of the various stages of production.

PARITY: Equality in the present purchasing power of a unit (bushel, cwt) of a product compared with its purchasing power during a specified base period. For example, in order for wheat to have the same purchasing power it had in the base period 1910–14, it would have to be selling for \$2.38 per bushel.

PRECOOLING: The process in which loads of fruit or vegetables are rapidly cooled prior to loading for shipment.

SOIL CONSERVATION SERVICE (SCS): Federal agency that advises and oversees programs and practices affecting soil conservation.

TERMINAL MARKET: A metropolitan market which handles all agricultural commodities. The San Francisco Wholesale Produce and Fruit Market is an example.

USDA: United States Department of Agriculture, a Federal agency involved in all phases of agriculture.

VERTICAL INTEGRATION: The combining of two or more successive steps in the production, processing and distributing processes under a single decisionmaking body. A canner that produces some of his own raw product, a group of farmers which acquires a cannery or a cotton gin, or a feed company that owns the poultry are all examples of vertical integration.

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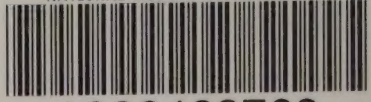
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